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PHYSIOLOGY.

LECTURES
ON THE
PHYSICAL CONDITIONS
OF THE
TISSUES OF THE HUMAN BODY
AS APPLIED TO THE EXPLANATION OF
VITAL PHENOMENA.

Delivered at the College of France in 1834,

BY F. MAGENDIE,
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LECTURE XV.

New Question connected with the Physical conditions of Tissues.—Sounds produced from them.—Their study.—Theory of Sound.—Its passage through Animal Solids and Fluids.—The Human Voice.—Its Imitation with Instruments.—Instances of a connexion between Physical and Vital Property.—The Vibratory Action of the Arytenoid Ligament.—Production of Sounds in the Intestines.—Elasticity of the Tissues, necessary to Sound.—Sounds produced by the Respiratory and Circulatory Apparatus.

WE have now, Gentlemen, examined at length certain physical properties which exercise an important influence on two of the main functions of the living body; and we have seen how extensively elasticity alone may be employed to explain the phenomena of circulation and respiration. By adhering closely to facts, by taking nothing for granted which we were unable to prove, and, above all, by employing our senses in the investigation of the physical conditions of the different tissues, we have been able to understand several points of physiology which were before unintelligible, or obscured by vain and imaginary theories. We have also taken a rapid view of the different changes which may take place in the physical properties alluded to, and described the various morbid phenomena thence resulting, while at the same time we did not neglect to draw your attention to the therapeutical considerations to which this part of our subject gave rise.

We shall now turn to another question, not less interesting and practical, viz. a consideration of the physical conditions accompanying the formation of sounds in the different parts of the human body. This may appear to you, at first sight, to be but little connected with the practical part of medicine, but I shall soon have occasion to show you how intimately the production of certain anormal sounds, or "bruits," as they are called by the physician, is joined to, and becomes in many cases the leading symptom of, various organic alterations, especially in the pulmonary and circulating systems. Let us first endeavour to acquire a general idea of the nature of sound, and of the circumstances under which it is produced in the natural world.

Sound, then, is the result of an oscillatory change of form in certain bodies, caused, in most instances, by the sudden application of an external power; a more or less considerable motion being communicated to the several particles of matter composing the sonorous body, this motion being finally transmitted to the surrounding air, through the medium of which it is conveyed to the organ of hearing. A vibration of particles and a transmission of the motion through the air is, therefore, one main condition of the production of sound. In the human body we have a complicated and very ingenious apparatus, destined to receive, to feel, to regulate this motion, and to convert it into a sensation, which is called hearing. It is unnecessary to enter into any detailed arguments to prove how sounds are employed in the appreciation of various diseases. You are all aware how highly the stethoscope has contributed to the ad-

vancement of our knowledge of diseases of the respiratory system; how we are enabled, by examining the different sounds emanating from the chest, to diagnosticate with certainty several morbid alterations at a very early period of their formation, and thus have the power of attacking pulmonary disease with increased chances of success? The anormal sounds of the heart, as I shall have some occasion to show you, have also become so many means of distinguishing various obscure affections of that organ and its appendages; and, in surgery, the stethoscope has been often employed with the greatest advantage in determining the existence of fracture, &c., in cases where the other rational symptoms were doubtful.

The few examples now quoted are sufficient to prove how important it is for the physician to make himself acquainted with the physical conditions accompanying the production of sound, and to study the circumstances under which it may be generated in the human body. Natural philosophers have, indeed, pointed out many of these conditions, but they have not as yet been sufficiently investigated to permit us to draw many practical conclusions. We shall, therefore, make a few experiments in order to explain the principal phenomena accompanying the generation of sounds, and direct your attention to those which bear any relation to our present subject. Thus, for example, we now put the particles composing this large metallic bell into motion, with a common fiddle-bow, and you see how the grains of sand, placed near it on this plate of porcelain, are also put into motion, and dance about on the smooth surface; it results from this experiment, that the vibration excited by the bow in the particles of the metal is communicated to the external air, as is seen in the motion of the sand, and is thence transmitted to the ear, where it is converted into a sensation.

All bodies which are thus placed in an atmosphere of vibration, are subject to become sonorous; but some are much more fitted to receive this property than others. This and many other phenomena of sounds have been well established, but any deductions to be drawn from their observation refer almost exclusively to physics in general. As connected with the science of physiology, they have either been totally neglected, or not explained in a proper manner. You may read in all works upon natural philosophy, a description of the divers conditions under which sound is developed in sonorous bodies; but it is also necessary to study the various ways in which it may be transmitted. You know that in general it is transmitted through the medium of atmospheric air with great rapidity, and in a very constant manner. It has been calculated that sound passes through the air at an immense rate per second. Many experiments have been made to determine the precise rate of its progress, which has been found nearly always equable, that is to say, it passes through equal distances in equal periods of time, but this rule is not without its exceptions; and the transmission of sound is affected by certain modifications or conditions of the atmosphere, which retard or accelerate its motion in a very striking manner.

I have already remarked to you that the phenomena accompanying the transmission of sound through atmospheric air are very interesting, not only to the physiologist but even to the pathologist and the medical practitioner, but this is a study which has hitherto been very much neglected. In fact, if you examine authors for information, you will soon perceive that the attention of physiologists has been almost exclusively confined to the phenomena which constitute the voice, or, in other words, to the sounds produced in the larynx during the passage of air through that organ, with the different modifications it may undergo, and the peculiar mechanism which gives rise to these charges, while other phenomena of high importance are almost totally neglected by the physician, and not thoroughly investigated even by the natural philosopher, under whose domain they seem more properly to fall. Thus, for example, we know that a feeble sound communicated to one end of a long, solid tube, acquires strength during its transmission, and issues loud and perfect from the opposite extremity. Here is a phenomenon certainly very different from the transmission of sound through atmospheric air, because in one case the sound, as everybody has experienced, becomes more feeble in proportion to the distance it has to traverse, while in the other it attains a high degree of perfection and intensity. Nevertheless, this remarkable difference has not been properly examined by natural philosophers, nor have they determined the causes which give rise to it, in any rigorous manner.

Another remarkable modification, which is worthy of your attention, is the circumstance of sound being transmitted much more rapidly through the medium of a solid body than it is through atmospheric air, which would seem to be its natural conductor. This fact has been long known to natural philosophers, and lately M. Biot demonstrated it on a very large scale; he took a number of long solid

tubes, composed of wood, and found that a sound, received at one end, was discharged at the other much more quickly than if it had to reach the ear immediately through the atmosphere; he also observed that the composition of the solid body modified the rate of transmission through it, and also the intensity of the sound, for when a tube of metal was substituted for the wooden one, the sound had lost a portion of its intensity, and was heard much more feebly at the further extremity.

The transmission of sound, Gentlemen, is not confined to elastic vapours, as the air, or to solid bodies; it is also transmitted through the various kinds of fluids, and this is a fact of importance which you ought constantly to bear in mind; for in the practice of medicine we have frequently occasion to observe examples of the transmission of normal or abnormal sounds, through divers fluids secreted in, or extravasated into, the different tissues and cavities of the human body. Thus, when a liquid, as pus, serum, blood, &c. is effused by disease into the cavity of the thorax, if you place your ear in contact with the parietes of the chest, you hear a distinct sound, produced by the respiratory murmur, or, in some cases, by the voice, which traverses the fluid, and strikes the organ of hearing, though altered and changed by the component parts, such as the fibrine, globules of pus, &c., of the fluid by which it is transmitted.

It is also of importance to know that sound is transmitted through a liquid body four times more rapidly than it is through the atmospheric air. This is a curious fact, and one which it is peculiarly incumbent on you to study, because this medium for the transmission of abnormal sounds presents itself much more frequently than any other in the practice of medicine. Not only the liquids, but other parts of the human body, such as the muscles, cartilages, vessels, cellular tissues, &c. concur in the transmissiou of sound. We know this to be the fact by experience, but are ignorant how it takes place, or what are the conditions for its accomplishment, because the question is new, and has been altogether neglected by natural philosophers. It is, however, very easy to prove, by a familiar example, the fact to which I allude; it falls before your eyes every day in the surgical hospitals, though in all probability you have never drawn the deduction I have just announced, from your attention being more exclusively directed to other matters.

Thus, for example, you have a patient to examine, suppose with a fracture of the fibula; the peculiar manner in which the bone is connected with the tibia may, as it often does, prevent any displacement of the broken portions, and you remain in a state of uncertainty. You have, however, recourse to the indications derived from the production of an abnormal sound, and you endeavour to give rise to what is called in surgery "crepitation," by grating one fragment against another: as soon as this grating motion takes place, you hear a peculiar sound, and are sure that the fibula is fractured. Now in this case the sound is transmitted through the muscles, tendons, adipo-cellular tissue, and skin; indeed the same takes place in all other transmissions of sound from the interior to the exterior of the human body, where the soft parts just named must be traversed before the sound can reach the ear. Unfortunately we are not acquainted with the physical conditions which take place during the passage of sound through the soft parts of the body, and any explanation which we might attempt would be mere conjecture.

Besides these sounds, generally called "bruits" by physicians, we have an instrument in the human body solely destined for the production of sound, an instrument which is most curiously and beautifully formed, and which has served as a type for all the most perfect sounds of music. A careful and patient investigation has enabled us to explain many of the peculiarities of the larynx; and although we may not have it in our power to account for all the conditions which we discover in that delicate and complicated organ, yet we can show at least that they are all adapted for one common end, the production and modification of sound.

We must here enter into some details on the nature and structure of the human larynx as an instrument of sound, and, above all, must endeavour to investigate and lay before you the physical conditions which accompany the production of that phenomenon. These preliminary considerations are necessary, because we shall shortly have to speak of the pathological conditions of the voice, and of the various circumstances under which the normal sound of the larynx is modified or altered.

We may commence by laying down this general proposition, that the laws of the propagation of sound are applicable to the living body, or, in other words, that sounds are transmitted from the interior to the exterior of the animal frame, in the same manner, and under the same conditions, as they are propagated through the air, through solids, or through any other portion of the material world.

Thus, for example, if you take any in-

strument, particularly a reed-instrument (*à anche*), and analyse it, examining the utility of each part, and referring each contrivance to its end, you will find a very striking resemblance between the instrument and the human vocal organs; you will discover several points of analogy between them, although unfortunately the theory of the former is not yet so far advanced as we could wish it to be.

Every instrument of the kind to which we allude may be distinguished into two parts, very different in their structure and use; one is the reed, or *anche*, and is formed by one or more thin elastic plates, vibrating alternately in a current of air, and thus producing and modifying the sounds in a very extensive manner. The *anche* is in all cases fitted to a tube through which the air destined to set the elastic plate in motion passes, and which modifies considerably not only the intensity of the sound, but also its tone, according as its parietes may be rigid, or composed of membranes varying in thickness, tension, or elasticity. Finally we may mention as accessory parts, a reservoir of air, and a tube to convey the sound, or voice of the instrument (*porte-voix*), after it has been formed. Now you have a perfect type of each of these parts in the vocal apparatus of the human body. You have the lungs and bronchi furnishing the type for the reservoir of air. The trachea is the *portivent*; the larynx represents, in its principal conditions, the *anche*, or the part containing the reed; and, finally, the pharynx, the nasal cavities, and the mouth, may be regarded as the *porte-voix*.

Here is an *anche*, one of the most agreeable and perfect that has yet been invented. If you examine its construction, you cannot fail soon to convince yourselves, that the instrument has been made in imitation of the human voice; in fact, its mode of action is extremely similar to that of the larynx, and it is capable of producing some sounds very analogous to the voice. The same construction is seen in the speaking tubes of an organ, but in the latter instrument you should remember that the air which communicates the vibrating motion is pure and cold, containing neither warm vapour nor carbonic acid gas, for it is well known to natural philosophers, that the quality of sound is modified by the nature and density of the gaseous fluid producing it, as also by the presence of different vapours in the gas. Thus there are very few sounds indeed produced by instruments, however complicated or perfectly formed, that you may not find in the human voice; but before we enter further on the question which occupies us, let us examine briefly the organs which vibrate in the apparatus of the voice. You are, without doubt, already sufficiently acquainted with the anatomy of the larynx, I shall, therefore, only remind you, that the portion of this organ which is solely destined to the production of the voice (or, in other words, "the chordæ vocales)," the "inferior ligament" of the glottis (the "vocal anche" of the human organ), is composed of the thyro-arytenoid ligament, with the muscle of the same name, extending, on either side, its free thin edge across the lower part of the larynx, below its ventricle.

In an early part of my lecture, I said that the presence of a vibrating body was one of the physical conditions necessary for the production of sound. Here, then, you find this physical property in the arytenoid ligament; which, from its position, and its connexion with the muscle of the same name, is capable of assuming, during life, an immense variety of different forms, density, and elasticity. Perhaps one of the most curious circumstances in the apparatus of the human voice is the manner in which the exercise of a physical property is made to depend on an action purely vital. Whenever the muscle attached to the arytenoid ligament ceases to contract with a certain energy, the ligament itself becomes too lax;—there is no vibration, and consequently no production of sound. But when the muscles act properly, the fibres are drawn tensely across the bottom of the larynx, like musical cords, their free edge is put into a state of vibration by the air which issues from the trachea, and the varied sounds of the human voice are developed. I request your attention, Gentlemen, particularly to this circumstance, because it is the first time since the commencement of the present course, that we see an example of the connexion and dependence of a physical on a vital property; it is not, however, the only one you will be called upon to notice during our examination of sounds. Here is another, with which every one is familiar. In certain conditions of the body, an unusual quantity of gaseous fluid is secreted into the cavity of the intestines, and gives rise to that rumbling kind of noise which so often issues from the abdomen of delicate females when the digestion is disturbed, &c. Now we cannot develop this sound in the dead body; although, as I remarked just now, you witness examples of it every day in the living. What is the reason of this? Why does not the passage of air through the intestine give rise to the production of sound as readily in the dead body as in the living? The answer is easy. The physical conditions necessary for the deve-

lopment of sound exist; but in this case there is also required the concurrence of a vital action, without which the physical properties (of themselves) are inefficacious.

Consider for a moment how the sound is generated in, and transmitted from, the living intestine. The long, narrow tube, composing this part of the alimentary canal, contains, in the cases we speak of, an unusual quantity of gas. The intestine is also contractile, and thus communicates a motion more or less rapid to the gas which passes from one caliber of the intestine to another, and thus generates sound, which is transmitted to those points of the abdominal parietes that may happen to be in contact with the gut. From the soft part the sound is transmitted to the exterior, because the abdominal muscles contract and vibrate at each displacement of the distended intestine. Here you see, also, a vital action superadded to the physical conditions; and as the former cannot exist in the dead body, you have simple displacement of the gas, without any production of sound.

The same phenomenon is exhibited in a still more remarkable degree by the human voice. If you take the trachea and larynx of a dead body, and force a mass of air through the former, you will not produce any sound properly so called: you will develop nothing but a kind of dull bruit, from the friction of the air along the parietes of the tube. During life, when the muscles have lost the whole, or a portion, of their energy, the production of sound is modified according to the extent of the injury: if the laryngeal muscles are paralyzed you have complete aphonia, because you have no contraction and vibration of the muscles and ligaments about the glottis, and, consequently, no production of sound: when the muscular energy is diminished, you have a weak and feeble voice. This is a symptom accompanying many different diseases, and is a proof of great prostrasion of strength, as in Asiatic cholera. Wherever it exists to a high degree, you may be sure that the muscular system in general is very much debilitated.

Thus you see, tha Gentlemen, that production of sound is not confined alone to bodies permanently elastic; but this property belongs to other bodies, which, being endowed with a power of contraction, become alternately elastic and vibrate. Besides the modifications resulting from this alternation of contraction and relaxation, the condition of the vibrating membrane is capable of changing the nature of the sound emanating from it. Thus, as you see here, this membrane, tightly extended from one hoop to another, gives one sound when dry, and quite a different one when I moisten it.

Again, if you strike the skin of the living body with the points of your fingers, the sound developed is dull and inconsiderable; but let the integument become distended by any physical cause, as the presence of air in emphysema, &c.; the skin immediately becomes sonorous, because it is distended in such a manner as to bring its elasticity into play,—the chief physical condition, as you have seen, necessary for the production of sound. This abnormal development of sound may occur as the result of various accidents, where air is forced under the skin, and gives rise to emphysema: or the latter symptom may be the result of chemical causes alone. Thus, in cases of strangulated hernia, the circulation may be so far interrupted in a portion of the intestine as to produce death of the strangulated part; disorganization soon ensues; gas is disengaged in some quantity, and we are rendered certain of the occurrence of gangrene, by the presence of air under the integument, and the development of sound in a part to which it did not belong in the healthy state.

The nature of the different sounds resulting from percussion of the different cavities or organs, often throws much light on the nature of their contents; and even gives several indications which we could not obtain from any other mode of examination. If you strike the stomach when filled with a liquid substance, the sound rendered is dull and peculiar; if the organ be distended with gas, the sound is hollow and clear. If you percuss the region of the stomach before a meal, when the organ is empty you have one sound, but when full it gives another; and you may be always certain, from the nature of the sound, whenever it contains anything: indeed this is generally the case; the stomach almost always contains something, either solid or fluid; and if you strike over its surface with the points of the fingers you have always a sound very distinct in its nature, which indicates the presence of substances in the cavity of the organ.

There are some functions, Gentlemen, whose exercise is naturally accompanied by the production of sound, and these are most important and interesting to the physician as study, because their normal state shows a healthy condition of the organic apparatus, while, on the contrary, the various modifications they undergo are connected with fixed changes in the structure of the organ, and thus give highly useful views on the pathological nature of disease.

Respiration, I need scarcely tell you, is the function with which the production of sound is essentially connected. The lungs are contained in a hollow sonorous cavity. At each inspiration the air is drawn into the chest, and strikes against a multitude of small tubes, giving rise to the development of a peculiar sound, or bruit, connected with the entry and exit of air from the organic apparatus. This appears to me the most simple and correct manner of explaining the production of the respiratory murmur; it is, in fact, nothing but the noise arising from the frottement of the air against the elastic membrane which composes the pulmonary cells. This, Gentlemen, is a very curious phenomenon, and it is well worth our while to bestow some time and attention in endeavouring to ascertain the physical conditions under which the development of sound is produced. They are not, indeed, well known, but we must submit the causes which give rise to the respiratory murmur to a strict examination before we can enter on the question of the abnormal bruits heard in the chest. The latter subject is completely dependent upon the former, and we can never hope to explain the rale crepitant of pneumonia, unless we are acquainted with the nature and cause of the respiratory sound in a state of health. We must, however, defer to another lecture a study of the respiratory murmur, and the various modifications which it may undergo through disease.

The *frottement* of air against a narrow tube, is one very general mode of the production of sound in the human body. There is another, resulting from the passage of a liquid body through a tube varying in dimensions, &c.; whenever the internal surface of the tube presents any inequalities, anything that may occasion a sudden shock or resistance to the course of the fluid, you may have sound produced. Here is a curious little instrument (the syren), which shows in what manner sound is developed under the circumstances to which I have just attended; it is a circle containing in the passages through which the air that is to produce the sounds is made to pass, certain inequalities of surface, causing from the impingement of the air against them, an union of varieties of tone. If, instead of air, I were simply to introduce some water, you would equally hear the noise now developed by the instrument. This, Gentlemen, is a new fact in physics, which, if followed up, may lead to very useful results.

In certain pathological conditions of the circulating system, we often find bruits of a strange nature developed, and depending on the action of the contained fluid on the parietes of the vessels; thus, suppose you have a patient labouring under contraction of the aorta at its orgin from the heart, with some little inequality of the semilunar valves. In this case each time the blood is driven from the heart into the trunk of the aorta, you hear a peculiar sound, *bruit de frottement* accompanying the contractions of the left ventricle. I have had frequent opportunities of hearing this bruit de frottement, and am convinced that it depends on a mechanical obstacle to the passage of the blood, for I have invariably found, after death, the semilunar valves of the aorta studded with small vegetations in cases where this abnormal sound existed during life. The phenomenon, however, may be produced by another cause, because the same sound has been heard immediately after the dilatation of the ventricle. I have not now time to enter on the question of the sounds of the heart; let me merely remark to you that these bruits, their causes, &c., are a subject of high interest to the physician, since they give a more correct view of disease, and afford an explanation of many anomalous symptoms, when studied with respect to the physical changes, and conditions giving rise to them.

In the animal economy we also find examples of sound produced by the shock of one part against another. In the external world nothing is more familiar; you strike one body hard against another, and you generate a loud clear sound; if the striking body be soft and inelastic, the sound produced is dull. In short, the variety of sounds resulting from the sudden shock of one body against another, is infinitely modified by the nature of the two bodies, and the manner in which the shock is produced. Now there is nothing to prevent the repetition in the human body of the phenomena observed in the natural world, provided the conditions necessary for their production exist; and this is the case with the heart, considered simply as a body capable of giving rise to certain sounds. From the nature of its function the heart is an organ which is constantly in a state of action; not a second passes that it does not present a state of contraction, and alternate dilatation, of its muscular fibres. During health this action is sufficiently energetic; in certain forms of disease the power with which the heart pulsates is astonishing. We have here, then, one physical condition for the production of sound, viz. a sudden shock of a solid body. Let us now see if we have any sonorous body in the neighbourhood against which it may strike. Need I tell

you that the heart is surrounded by and contained in the thorax, a cavity whose parietes, in all directions, are extremely elastic, and thus calculated to transmit from the interior to the exterior any sounds which may be produced within it. At each contraction of the heart, the muscular body strike against the anterior wall of the chest; at each pulsation, as it is familiarly called, the organ undergoes a kind of redressement; the point strikes against the elastic surface of the ribs, and a sound is thus produced, which you may readily distinguish by placing the ear on the chest of a healthy individual, and which, in some cases, is so clearly developed, as to be heard at a considerable distance. Those who have paid any attention to diseases of the heart, must have remarked the great force with which it strikes against the chest in several affections of the aortic valves, &c.

This phenomenon, Gentlemen, has already received at least ten different explanations, and everybody has endeavoured to discover its true cause; but nothing appears to me more natural or more simple than to say, that when one body suddenly strikes against another body we have a sound produced. There is, however, another sound of the heart which we shall examine and ascribe to its cause in a future lecture. You know the bruit of the heart is not single; it gives a tic-tac sound like that of a watch; there are two shocks, one immediately following and perfectly distinct from the other; this sound, in my theory, is connected with dilatation of the ventricle, which strikes against the sternum; but, as I said before, we must defer the examination of these bruits. I have merely mentioned them here, as an example of sounds produced in the human body by the shock of one part against another. We also have an example in the sound which schoolboys produce in the articulations of the fingers. This certainly arises from a kind of shock; though, I must confess, I cannot well explain how it occurs; the two articulating surfaces are suddenly separated and brought in contact again as quickly, but there is something peculiar in the manner, which escapes our sagacity.

Thus, Gentlemen, the physical laws of sound in general are applicable to the sounds which we hear in the human body, either during health or disease; and the latter, as I have endeavoured to show you in the present lecture, are developed by percussion, or the shock of one hard part against another,—by the rubbing of the different parts, or by the passage of a fluid through a narrow cavity, where it meets some resistance from a foreign body. These are, in fact, physical phenomena, common to all parts of the natural world; they are not incompatible with life, nor do they seem to be modified by it; although we might venture to affirm, that in the living body sounds are produced under certain conditions, and in a way capable of bringing to light some new facts in natural philosophy, and that the latter science may be advanced by the study of these sounds, in the same way as the manufacture of musical instruments has been improved by the study of the human larynx, and of the means employed to produce that exquisite instrument the human voice.

CLINICAL MEDICINE.

LECTURES

DELIVERED AT THE

NORTH LONDON HOSPITAL,

BY

A. T. THOMSON, M.D.,

Physician to the Hospital, and Professor of Materia Medica in the University of London.

LECTURE V.

CHRONIC LARYNGITIS.—*Mercury in Inflammation of the Larynx; Combination of Laryngitis and Phthisis.*

GENTLEMEN,—In the lecture before the last, I mentioned the case of Maurice Welsh as one of considerable interest; but I refrained from making any particular comments upon it, at that time, from the expectation that its fatal termination, which was then drawing near, would enable me to verify, by dissection, the diagnosis which I had hazarded, namely, that the complaint was confined to the larynx and trachea, or was *chronic laryngitis*. What I anticipated took place; Welsh died on the 19th; but my expectation of a post-mortem examination of the body was defeated by the cupidity of his friends, who intimated their hopes of obtaining a sum of money for the permission to open the body; and, as that was refused, the opportunity which I so much desired was denied to me. The case, nevertheless, affords matter both of instruction and interest.

The patient was thirty-seven years of age, a schoolmaster, of a tall, spare habit of body, and a melancholic temperament. He stated that he had enjoyed excellent health, until about five months before his admission to the hospital, when

he was attacked with a slight cough, from exposure to cold, for which he sought no medical advice. It, however, gradually increased, and in two months he became so hoarse that he could not speak above a whisper, without a considerable effort, and he experienced some uneasiness in swallowing. When he was admitted to the hospital, the cough was very frequent, attended with a muco-purulent expectoration, and a similar discharge from one nostril; the expectorated matter tasted salt, and when it ceased or became scanty, the discharge from the nostril also ceased. At no time had any blood appeared, either in the sputa or in the discharge from the nostril. The violence of the cough and the quantity of expectorated matter had lately diminished; but he had lost strength, become sallow and emaciated, and the cough was excited by the smallest irritation of the glottis. He experienced some degree of pain, which he referred to the larynx. The pulse was 92, small, and irritable; the tongue slightly furred; the bowels were natural; and although the urine was high-coloured, yet it deposited no sediment. His nights were wakeful and disturbed by his cough, but he had no perspirations.

Now these are the symptoms which usually attend this affection of the larynx. The inflammation is at first slight, and may be easily overcome by topical bleeding with leeches, the application of a blister, and the administration of calomel in doses of a grain, combined with three or four grains of James's powder, once in six or eight hours, until the mouth is slightly affected; and keeping the surface warm, whilst the patient is confined to a summer temperature. Indeed, the influence of mercury in inflammation of the larynx, even when it is the result of mechanical irritants, or acrid substances, is most striking; and I am enabled to cite my own case in illustration of this fact. It is well known to the greater number of you, Gentlemen, that I was lately attacked with extensive inflammation of the fauces, the pharynx, and the larynx, from having accidentally inhaled about eight ounces of concentrated chlorine gas. The inflammation increased, and I was unable to speak without coughing being immediately excited; and this, also, was the case when the smallest quantity of cold air was inspired. I was, therefore, obliged to discontinue my duties both in the University and in the hospital, and to confine myself to my room. Leeches were applied to the neck; large doses of calomel were administered with the view of aiding the influence of purgatives; and I inhaled the vapour of hot water impregnated with tincture of henbane. Little advantage, however, was obtained, until, from the repetition of the calomel, my gums became severely affected; the cough then almost immediately moderated; and, by continuing the use of the calomel, it altogether ceased in the course of a few days. On discontinuing the use of the remedy, the irritation returned. I have, therefore, kept up a slight action upon the gums to this moment; and as I am now taking, at the same time, a tonic, I feel that my health and strength are rapidly returning.

But this salutary influence of a mercurial in inflammation of the larynx, is only striking at the commencement of the disease. After it has proceeded to the height to which it had extended in Welsh's case, little benefit can be obtained from mercury; and it then becomes of more importance to allay irritation than to reduce inflammation, which by this time has, generally, run into ulceration. Under these circumstances, after clearing the bowels, Welsh was ordered a mixture, composed of a scruple of *Compound Powder of Ipecacuanha*, fifteen minims of *Hydrocyanic Acid*; ʒj of the *Compound Powder of Tragacanth*, and f. ʒviij of *Water*; of which a tablespoonful was directed to be taken every fourth hour, and a blister was applied to the fore part of the neck. The cough, however, continued unabated, and the hoarseness remained considerable until the 1st of December, when he stated that he felt much relieved; the pain on coughing, he said, was gone, and he merely experienced a slight oppression at the chest when he spoke. The expectoration, however, had increased in quantity; it was in round masses, of a greenish colour. The tongue was also red, indicating an extension of the inflammatory action to the mucous membrane of the alimentary canal, and into the trachea; his condition was, nevertheless, on the whole improved. This improvement, however, was fallacious. On the 8th of December all the bad symptoms returned; and every effort to swallow was productive of a violent fit of coughing. Leeches were applied; and the following mixture ordered. ℞ *Morphiæ Muriatis Solut.* f. ʒj; *Lichenis Decoct.* f. ʒvj. M. Sumatur cochlearium amplum 3tia quaque hora.

The cough was kept down, during the day, by this narcotic; but, as the nights were still much disturbed, he was, on the 12th, directed to take one grain of the extract of opium, at bed-time, daily. This procured some sleep; the disease, however, was still gaining ground; and the strength of the patient rapidly failing. He requested to have the dose of extract

of opium increased, and it was, accordingly, augmented to one grain and a half on the 15th; but no advantage having been derived from it, the dose was further increased to two grains on the 17th, when his strength sank rapidly, and on the evening of the 19th he expired.

As no post-mortem examination was permitted, I can say nothing of the state of the larynx; but it may be useful to mention to you, that in similar cases, the mucous membrane lining the fauces and pharynx has been found inflamed, the epiglottis and its ligaments much thickened, the chordæ vocales nearly destroyed by ulceration, and the whole of the interior surface of the larynx studded with minute ulcers, the greater number of them not larger than the head of a moderate-sized pin. In some instances, I have seen this state of ulceration extend into the trachea, as far as its bifurcation; but, when the inflammation has commenced in the larynx, I have never seen it extend to the mucous membrane of the bronchi. Although, when it commences in the bronchi, it is by no means uncommon to find that it has spread to the larynx.

When this disease attacks persons of a scrofulous diathesis, especially when there are nascent tubercles, it rouses these into activity; but, nevertheless, the condition of the larynx often so engrosses the attention of the practitioner, as to make him overlook those symptoms of phthisis, which under other circumstances would be the first objects of his attention. This observation you have had an opportunity of seeing illustrated in the case of Thomas Hodgson, the post-mortem examination of whose body took place yesterday. That combination of laryngitis and phthisis is generally the result of exposure to cold, or damp night air, under a state of mental depression and bodily fatigue, in those predisposed to tubercular disease. Dr. Cheyne remarks, that it is a frequent disease with those wretched females who walk the streets at night; and that the flush which spreads their cheeks is not always the glow of intemperance, nor the factitious blush of effrontery, but the crimson of consuming hectic which is rapidly hurrying them to a premature grave.

In the progress of your professional career, Gentlemen, you will meet with few diseases which so insidiously steal on to an irremediable state as that now under consideration. It is very frequently mistaken, at first, for what is termed a stomach cough; and it is not until the cough has become hollow, the voice raucous, the inspiration muco-sibilant, the frame emaciated, the strength exhausted to a great degree, with quickness of the pulse, and irregular chills and heats, indicating the approach, if not the presence of hectic, that the attention of friends is directed to the condition of the patient, and medical aid is demanded. But it is now as hopeless as a case of confirmed phthisis. In a stage much less advanced, but still beyond the first stage of the disease, I have seen the greatest benefit derived, and even complete cures effected, by a voyage to Madeira, and a six months residence in that soft and genial climate. But, when the disease occurs in the poor, if we can place confidence on anything, it must be on counter-irritation; and the internal administration of calomel, tartar emetic, and opium, with a rigid milk and farinaceous diet; and the daily, nay almost hourly, inhalation of watery vapour; and confinement to a graduated temperature. I wish, however, that I could conscientiously say that I can bear my testimony to the efficacy of this plan of treatment; for, indeed, I have scarcely seen any instance where the disease had advanced beyond its first stage that has recovered in this country.

In strumous habits, such a condition of the larynx, as in Welsh's case, is not unfrequently an accompaniment of secondary syphilis. It is usually indicated by stridulous cough and hoarseness, attending a cachectic and febrile state of the body, with emaciation. In such cases, I have generally seen the disease, if not too far advanced, yield to an alterative course of calomel, antimony, and opium; at the same time maintaining the strength, either by full doses of nitro-muriatic acid, in any demulcent fluid, combined with sirup of poppies; or by a continued use of decoction of sarsaparilla, and a milk diet.

You will perceive, Gentlemen, that I have made this case the means of introducing a more general view of the disease in question than is usual in a clinical discourse; but, in my opinion, one of the great objects of clinical teaching is to enable the student to reason, as it were, from particulars to generals; and to render, in what the hospital affords us, the means of drawing forth the experience of the teacher, both in his private and in his public capacity. I conceive this to be particularly requisite in commenting upon such a case as the one now before us. In every instance it is important to keep in view the slow progress of the disease to its fatal issue; and to reflect that as it is undoubtedly the most fatal of those inflammatory affections which are considered *subacute*, so it is requisite, in every stage, to deliver your prognosis with the utmost caution.

TUBERCULAR PHTHISIS. — *Ulceration of the Larynx; Unusual Localities of Tuberculous Matter; Spurious Melanosis; Origin and Varieties of Pulmonary Tubercles.*

The next case to which I have to direct your attention, is the one to which I have alluded, as having terminated fatally two days ago. The name of the patient was Thomas Hodgson, by trade a silver-plater, aged thirty-one years. He was admitted on the 16th of December with a cough, which had existed, more or less, from the 1st of October last, and had, within a few days before his admission, assumed the character of bronchitis. In appearance the patient was tall, extremely muscular, with a broad capacious thorax, and of a melancholic temperament. He complained of tightness across the chest, a teazing cough, and great hoarseness, but of no other ailment. There was little or no expectoration at the time of his admission, although he stated that he had previously expectorated freely. Previous to the attack in October, he had enjoyed good health for many years, and he affirmed that he had always lived a regular life. From the pearly appearance of the eye, the curved aspect of the nails, and a slight hectic flush, which occasionally appeared upon the cheek, with the deranged respiration indicated by the stethoscope, there was reason for suspecting the existence of tubercles in an advanced stage in the lungs. The tongue was furred, the skin natural, the appetite good, and the bowels were open. The urine was high-coloured and thickish, and deposited a pinky sediment. He was ordered to apply a large blister upon the fore part of the neck, and a pill, containing one grain of opium and three of extract of conium, was ordered to be taken at bed-time. On the following day he was bled to the amount of eight ounces, and a pill containing three grains of calomel, and the same quantity of James's powder, and one grain of opium, was ordered to be taken immediately after the venesection, and to be followed by a black dose in the morning. This produced considerable relief from the symptoms, and he felt improving until the 20th, when the cough having again increased, and there being some degree of sharpness of the pulse, the following change of medicine was ordered:—

R. *Antimonii Tart.* gr. vj; *Aquæ Distillatæ* f. ʒvi. M. Sumantur cochl. iij majora, vel quarta misturæ pars, 4ta quâque horâ.

R. *Morphiæ Muriatis Solut.* f. ʒss; *Aquæ Distillatæ* f. ʒi, sit haustus horâ somni sumendus.

The report on the 22nd was,—the voice was better in the morning, the chest feels relieved, and he rests better at night, but the appetite is not so good as before. He continued to improve until the 27th, the blister to the throat having been repeated in the interval. On the morning of this day he complained of having caught fresh cold, which had produced a sore throat, with difficulty of swallowing food. On examining the throat, however, there was not much swelling of the tonsils, but the whole of the fauces was covered with an inflammatory blush. The pulse was 92, and sharp; the skin felt rather hot and dry, and his tongue, which had previously cleansed, was again parched and furred. Under the suspicion that a current of air in the general ward might have occasioned this change, he was removed to one of the small private wards, and bled to the amount of eight ounces; after which he took a pill containing five grains of calomel, which was ordered to be repeated every third or fourth hour, to the third time. On the 28th he was much worse, and the pulse had risen to 114. Mr. TAYLOR, the house-apothecary, bled him largely, but the untoward symptoms continued to increase, and at ten o'clock on the 29th he suddenly expired.

Post-mortem Appearances.—Five hours after the death of the patient the body was examined. As my first object was to investigate the condition of the larynx, this was carefully dissected out, and the whole of the lungs was removed from the thorax. On examining the larynx, the epiglottis was found to be rather thicker than usual, but not œdematous. A deposit of tuberculous matter was found near the base of the epiglottis, where it forms an angle of union with the thyroid cartilage. The cordæ vocales of the glottis were ulcerated, and a small ulcer perforated the larynx immediately at the centre of the base of the epiglottis, whilst a cluster of seven small ulcers surrounded the perforating one. The mucous membrane of the larynx and trachea was thickened, but it was not particularly vascular. (*The lecturer here exhibited the part.*) This is an unusual locality of tuberculous matter, but it occasionally occurs. In the present instance it affords a demonstration of an important etiological fact, pointed out by Dr. CARSWELL, that "mucous and serous tissues in immediate contact with tuberculous matter, may be found of their natural character in every respect." In this instance, although the epiglottis is slightly thickened, yet it is not altered in any other respect in its appearance. The lungs were, on the upper and posterior portions of the superior and middle lobes

of both sides, thickly studded on the surface with miliary tubercles, each surrounded by an elevated areola of black matter of that description which constitutes what is termed *spurious melanosis*. This appears to be the result of retarded or obstructed circulation in the venous capillaries, in consequence of the mass of miliary tubercles occupying the whole substance of the superior lobes in both lungs, which was demonstrated by cutting into them, and is well displayed in the portions which I now show to you. It is only when it is produced by tubercles, as in the case before us, that it is displayed in separate points, or forms areolæ. Sometimes, as Dr. CARSWELL has observed, when it occupies the circumference of the tubercles, it assumes a stillated appearance. The distinction between its deposition under such circumstances, and when it extends in one uniform manner around vomicæ, or tubercular excavations, was satisfactorily demonstrated in the lungs of this patient, in which there was an ample vomica in the upper part of the superior lobe of the right lung, capable of holding nearly half a pint of pus, and the bursting of which into the trachea was probably the cause of the sudden death of the patient, for no expectoration of decided pus had been previously observed.

There was also a smaller vomica in the upper portion of the superior lobe of the left lung, more deeply seated than its opponent, besides several smaller vomicæ, about the size of a hazel nut, in various parts of both lungs. Contrary to general observation, the greater quantity of tuberculous matter existed in the right lung in the patient whose case is before us; but it, nevertheless, confirmed the equally general observation that the superior and posterior portion of the upper lobes in both lungs, is the most usual situation of the largest deposits; and, probably, that in which it first occurs. Dr. CARSWELL has explained this locality, by the comparison of the functional activity, or extent of mobility, of the inferior and superior lobes, fixing the greatest deposit where there is the least motion, namely, in the superior lobes. "The inferior lobes," he justly remarks, "ascend and descend throughout a space equal to that in which the diaphragm is capable of contracting, and expanding in all directions to the fullest extent of the dilated inferior walls of the thorax;" whereas the superior lobes have a very limited ascent and descent, and an equally limited lateral expansion." The truth of this opinion is demonstrated in these lungs; for the superior lobe of the right side, in which the vomica existed, and in which there was the greatest accumulation of tubercles, was adhering, from some old diseased action. From the extent and number of the miliary tubercles, I am authorized in regarding this as an instance of evident hereditary disease, in which probably the tubercles originated at a very early age, and remained nascent until called into activity at the period from which the patient dated the commencement of his cough.

This is not the place to enter into an examination of the various opinions advanced with respect to the origin of tuberculous matter. In the lungs now under inspection it is seen in every stage of its progress, from the firm, miliary granule, to the softened tubercle, and the purulent excavation, or vomica. Dr. CARSWELL, contrary to the general opinion, asserts that the softening takes place at the circumference of the firm tuberculous matter, or where its presence, as a foreign body, is most felt by the surrounding tissues; and many of the tubercles in the portions of lung now in your hands fully verify this observation. I would especially direct your attention to the difference between the matter of tubercles in the tissue of the lungs, and that deposited at the angle which the epiglottis forms by its junction with the thyroid cartilage. In this spot it has the aspect of putty, or half-dissolved bone; and it is probable that the perforation of the larynx, which I have pointed out to you, and the small ulcers in its lining membrane, contained matter of a similar description. When the tubercles enlarge and suppurate, and excavation takes place, a communication with the large bronchial tubes is formed, by the smaller being involved in the ulcerative process, and thus the pus is expectorated, and the vomicæ are more or less emptied during the life of the individual. But when this does not occur, and the cavity continues shut until a large accumulation of pus takes place, then a sudden rupture admits it into the bronchial tubes, of the first or secondary series, and suffocation is likely to be the result, unless sickness, or a powerful effort of coughing, occurs to clear the tubes, and again admit the air into the bronchial cells. Dissolution from such a cause is very likely to take place in the congested and hepatized condition of lungs which this case presents, and in which a small portion only of this organ on either side, was capable of carrying on the function of respiration.

Besides this state of the lungs, the heart was in a state of moderate hypertrophy; and a considerable quantity of water was found in the pericardium.

In such a condition of the thoracic

viscera there could be no hope of recovery; and it is probable that the pneumonic attack which supervened, only anticipated, by a few weeks, what must have taken place. The man was not emaciated, and, to look at him when he was not moving, which always displayed the deranged condition of the breathing organ, he did not appear to be in such a state of disease as would have led one to suspect the existence of so much mischief in the lungs. But disease did not even terminate here; the liver, also, displayed a morbid condition of structure, and ossification was detected upon the dura mater.

This case, Gentlemen, is one of the most important which I have witnessed for many years, in the extent of instruction which it affords to the student, and it shall be my endeavour to point out those features of it that are most likely to prove useful to you in a practical point of view; but our present time is expired.

CLINICAL SURGERY.

LECTURES

DELIVERED AT THE

NORTH LONDON HOSPITAL,

BY

ROBERT LISTON, Esq.,

Surgeon to the Hospital, and Professor of Clinical Surgery in the University of London.

LECTURE II.*

THE TREATMENT OF DISEASE.

At our last meeting here, Gentlemen, before the Christmas holidays, I insisted at some length on the removal of the exciting cause of disease, as one of the primary and principal means of effecting a cure. I illustrated the subject by several cases; one more I may be permitted to relate, in addition, as being apposite and interesting of itself, and as enabling me to introduce to your notice one of an extensive series of plans of disease which I have employed with great advantage in illustrating surgical lectures, and which others have found most useful in teaching various branches of medical science. The style in which I have had these painted lately, pleases me more than that of any which I have hitherto used, or seen in the possession of other teachers. The plan of this eye exhibits a violent state of inflammation of the tunics, attended with chemosis. It had been treated by various general and local measures, but the action did not in any way abate, and no impression was made upon it, until, through the opening represented over the superciliary ridge, a piece of necrosed bone was extracted. The disease of the eye was produced, and kept up by the excitement attendant upon the discharge of the dead part, and had this not been removed, in time the organ must have been destroyed. The case is not an uncommon one.

As a most essential plan of cure, next in importance to the removal of the cause, I may mention rest, and in the majority of cases, also, particular attention to position must be enjoined. It is almost always possible in diseases affecting the more external parts, to suspend the action of those parts, and this is another circumstance which may account for our department of the science being more successful and certain in its results. The putting of a part at rest is equally necessary in cases of disease, as of injury in affections of the eye, of the lip, of the parts of generation, of the extremity of the alimentary canal, as in sprain, bruise, or fracture. What are many of our most common surgical operations undertaken to accomplish, but this principle of treatment, – the division of the sphincter ani in fistula, for instance? How seldom should we have to leech, foment, and blister joints for the effects of sprain, were rest given to the injured parts from the first! Position no less requires to be attended to in a variety of injuries and diseases. Without attention to position, very many cases cannot be managed at all; and many operations well planned and conducted are followed by troublesome results and by tedious cure. Attention to this principle is requisite to favour the return of blood, to prevent accumulations, to relax the covering of the body, as well as the muscular apparatus, to favour union and prevent deformities. All this I shall have ample opportunities of illustrating to you on many occasions and in various ways.

Now, Gentlemen, the treatment of diseases, constitutional as well as local, should be as simple as possible; it has always been my aim to make it so, but let it by all means be founded upon a knowledge of the laws of the animal economy, and upon rational and common-sense principles. Set out with a determination to pursue no method of cure because it has been recommended or practised by this person, or the other, how high soever their standing and their authority in the profession may be, unless a good, substantial, and intelligible reason for every step can be, or

* Delivered on Saturday, January 3rd, 1835.

has been given. I have often had occasion, since I have taken charge of this hospital, and often enough before, to find fault with the indiscriminate use of external applications and internal medicines. It is the business of the practitioner to ascertain by inquiry and observation the power and action of the various medicaments, whether they be stimulant, escharotic, sedative, or soothing. His mind should be made up on this subject; he should act accordingly, and follow out the indication of cure. Then should we not have the same application made in irritable and weak ulcers, in cases where the action of reparation is required, and equally where exuberant parts are to be got rid of before a cure can follow and be confirmed?

As regards constitutional management, the propriety of unloading the stomach and bowels, of clearing the prima viæ, as they are called, and promoting, so far as possible the healthy secretions from these surfaces, is not to be questioned; and, indeed, is quite indispensable in fevers, in affections of the head, of the skin, and of the orifices of the mucous canals, as also in affections of the urinary organs dependent on acrimony of the secretions, and in cases where deposits are taking place from that fluid. On the other hand, nothing can be more absurd than to insist upon putting the digestive organs always in the wrong. Disorders of function in those useful parts are a fruitful and frequent cause of general and local disturbance, but there is no rule without an exception. A blind imitation of what others have said, done, or written, in favour of this line of procedure, cannot be too strongly reprobated. No one can be more sensible than I am of the absolute necessity which exists of attending to the state of the chylopoietic viscera, and, generally, to the state of the constitution, in all diseases. When embarked in practice you will soon be convinced by experience that something more than unloading the bowels by aloetic purges, or exciting action of the liver by mercurials, is required of the practitioner who expects to benefit his patient. The condition of the circulation, of the respiration, of the skin, the expression of the countenance, the quantity and quality of the urine, must all be looked to. It is not sufficient for the practitioner to lay hold of the wrist with a wise air, and seem to note the rhthym and strength of the pulsations in that region. These must be examined at various parts, for it often happens that while the circulation appears to be all right at the temples or wrist, it is flagging—perhaps the pulsations are indiscernible—at the ankle and other parts far removed from the centre of the circulation. Were this better attended to, the disgraceful scenes which I have more than once witnessed, of bleeding patients almost *in articulo*, and on the brink of the grave, would be avoided, and the termination be attributable to the disease and not to the doctor.

The fashion which has prevailed regarding the constitutional treatment of local diseases has been carried much too far, and to the neglect, very often, of palpable local causes. It is surely absolute folly to incur the risk of ruin to a patient's health by adopting general treatment for diseases which are purely local, and dependent upon local irritations. "*Alterative* medicines," as they are called, are prescribed and poured into a patient, most frequently when the progress of a case is not satisfactory,—when the practitioner is baffled by inattention to the principles of treatment, and, probably, by that indiscriminate employment of external remedies which has already been reprobated. I left a few good cases in the *Royal Infirmary of Edinburgh* exhibiting the fruits of such mismanagement. One poor fellow had been treated to no less than six courses of mercury for gonorrhœa. He had been a fine, tall, handsome fellow, but his health was now broken. He had ulcerated palate to a fearful extent, abscess in the corner of his eye, the spongy bones were dead, and in process of separating, and there was such a discharge, and such fœtor, as were quite overpowering. It was almost impossible to come within arm's length of him. But here are memoranda, taken from the hospital book—*an authentic record*—such a one as I expect we shall have kept *here* for your advantage, and the advantage of those who are to follow you:—

"Oct. 1834. An artilleryman, ætat. 35. Has never had any sore of the penis: has had gonorrhœa three times, the last attack in 1830, when swelling of the groin took place, and he was admitted into Woolwich hospital. Papular eruption broke out, and he took two blue pills a day for forty days. Five weeks after being out of the hospital the eruption returned, and he was again salivated, when the eruption again disappeared. About six months afterwards, a discharge from the nose commenced, preceded by epistaxis, and he was again taken into the hospital and again salivated. He then went to Ireland, and was again *blue-pilled*. He then changed hands and got the muriate, changed quarters, and got Plummer's pill to salivation." *Six courses of mercury for gonorrhœal lichen!* In last course and during salivation ulceration of the throat came on, destroying the whole of the soft

palate; ulceration then extended over the hard palate, and intractable sores appeared on the upper part of the cheek. The latter, and the fœtid discharge from the nose, still continue.

I had, but a very few days before giving up charge of the Edinburgh Hospital, to put a new nose upon the face of another patient,—an operation which I think I must have performed in nearly twenty cases, besides patching very many more. In this instance, as in most of the others, the loss of the whole organ, bones as well as cartilages, together with the greater part of the palate, was attributable to the improper use of medicine. One other case, and I have done with this part of the subject:—

A middle-aged gentleman came to consult me; he was quite lame, in consequence of violent pain on the fore part of the thigh, in the course of the external cutaneous nerve. He could not walk without grasping the limb with both hands. He showed me a swelling in the abdominal parietes immediately above the ligament of Poupart, evidently full of matter. He was much emaciated, nervous, and shaky all over, skin rough, and hair dry; in fact he was altogether out of condition. He had laboured under gonorrhœa, which had nearly disappeared. He was out, on the hills, grouse shooting, and, after violent fatigue, and when much heated, sat down on damp grass, and remained exposed for a considerable time. On returning home he had a shivering fit, which was speedily followed by glandular swelling in the groin, which, after a short time, suppurated. He had, during the progress of this swelling, *alterative* treatment, Plummer's pill, &c. The swelling in the abdominal parietes began to show itself. Calomel, and afterwards blue pill, were then substituted, and persevered in until his *constitution* was *altered*,—no one would have been so bold as to say for the better.

Such are the too-frequent, the every-day results, of the doctrines respecting the "constitutional management" of local diseases, being misunderstood and misapplied. Some few get over the effects of such treatment, blessed with constitutions which nothing seems to injure; but, on the other hand, many thousands every year have their constitutions so shattered, so much affected by *alteratives*, so *changed*, that their most familiar friends, after a short absence, would not recognise them. Nose and teeth, palates, eyes, and bits of skull, are deficient; their health is broken and destroyed for ever; their limbs become attenuated and tremulous, and they are crippled by swollen joints and bones. This is no overcharged picture.

In such cases, a judicious practitioner may, and often can, prove the good effects of general treatment; the shattered frame may be patched up. By removing sources of irritation—by attention to the secretions, to the condition of the digestive apparatus and the external surface,—by tonics, diet, baths, friction, clothing, change of climate, &c. much may be effected. But inconceivable mischief has arisen from inconsiderate and indiscriminate adoption of the late Mr. Abernethy's views. I do not mean to question their correctness, or the advantage derivable from the practice when employed judiciously and to a limited extent. I was well and intimately acquainted with Mr. Abernethy, and entertain a high respect for his memory. He was a great enthusiast in the profession, and a good and persuasive writer; and a young surgeon, not making proper allowance for this, would be led to suppose that all diseases incident to humanity could be controlled and rendered curable by the method recommended by him. It is very simple, and saves a world of consideration and thought. Some of his followers would have one believe that glandular enlargements, both internal and external, are removeable by the long-continued exhibition of mercury in small doses. Nay, that even *tumores mali moris*, malignant growths, may thus be arrested in their progress, and rendered innocuous. The time for more decided interference is thus permitted to elapse, and the patient is irretrievably lost. So far as I have observed this matter, what is called "scrofula" is more frequently engendered and developed than cured, by mercurial preparations, and not only in the individual so treated, but in his or her descendants, and I am equally well convinced that no remedial measure short of complete, free, and early removal, is at all available in tumours of a bad kind. Permit me to show you one other plate of disease, in the bulb of the eye. Here, below, is an eye, represented on a sufficiently large scale for you all to see it distinctly. It stares you out of countenance. The pupil is dilated and irregular, it is also dim. This is the appearance of the organ in the early stage of the medullary tumour growing from the bottom of the chamber of the vitreous humour. It was proposed to remove this disease by operation. Another opinion was taken, and the Doctor undertook to effect a cure by some internal medicine, in a few weeks, three or four, I think. Here is the appearance (and a frightful one it is; a tumour equalling in magnitude a child's head) which it presented at the end of three months.

Some practitioners have a misplaced

confidence in other less hurtful agents, and many men, I fear, pretend only to have confidence in these therapeutical agents. The doses in which medicines of the alterative kind are given, are very various. Some put their faith in the 1000th part of a grain of this or the other salt, gum, drug, or alkaloid, whilst others set no limit to their allowance of the same. ℈i, ʒi, nay, ℥i doses are scarcely thought sufficient. It is truly ridiculous and amusing to contemplate the various nostrums and systems which are employed.

Another very important object in treatment, consists in allaying pain and irritation, soothing the patient's feelings, mental and bodily; and much is to be effected in this way by a kind and attentive manner, by such conduct as inspires confidence. A great deal also is to be done by the judicious administration of such medicines as allay nervous irritability, and procure refreshing rest.

Although by the marked advancement of the science,—by the superior attention to and knowledge of morbid alterations,—practitioners are now enabled to remedy many diseases, by means simple and easy of application, which formerly were conceived removable only by severe and dangerous operations,—yet cases do occur in which surgical operations are unavoidable. These must be undertaken now and then to preserve life, to save the structure of an organ, or to save a limb, to remove deformity, or to prevent contamination of the system. With such views operations may be justifiably undertaken. The golden rule of "Do to others as you would be done by," ought never to be for one instant absent from the mind of the surgeon when an operation, however trifling its nature, is under consideration; and rest assured, gentlemen, that the surgeon, whose experience enables him to avoid operations in his own practice, and prevent their performance by others, is more deserving of credit and more likely to gain reputation, than the mere "knive's man," a phrase, I think, of old Richard Wiseman.

When operations are considered unavoidable, and their performance has been determined upon by the surgeon and agreed to by the patient, they should not be delayed but for the most cogent reasons, and these connected with the patient's well-being. Preparation of the system for great operations, as generally put in practice, is rather hurtful, so far as my experience goes, than otherwise, in the majority of cases. If the digestive organs happen to be much out of order, or the circulation is disturbed, these must certainly be put right. When the general health is much impaired, a little rest, attention to diet, and reassurance, are necessary. In ordinary circumstances, delay and anxiety are exceedingly prejudicial, and likely to put the patient in a more unfavourable condition, which will not be counteracted or removed by medicine, bleeding, or diet. The system of collecting patients for display on a certain day of the week or month in our hospitals cannot be too much deprecated. It may be gratifying to the vanity of those who plume themselves upon some supposed dexterity on their own parts or that of their friends, and may be convenient for the more idle of the pupils; but it cannot prove otherwise than hurtful to those who are more immediately and vitally concerned—the poor and suffering patients. Pouteau has well and strongly reprobated such cruel and unfeeling proceedings.

In order that an operation be got through safely and cleverly, it is essential that the apparatus should be simple, that it should also be ample and in good order, and that provision be made against any accident that may arise. Precautions should be taken against any great or dangerous loss of blood during the operative procedure. Temporary proceedings to guard against loss of blood are sometimes employed to a hurtful extent, and unnecessarily. There never, in my opinion, can arrive a necessity for performing the painful preliminary operation of tying the trunk of an artery before removing a tumour, however large or vascular it may be. I have known this done in some cases; the common carotid of one side, and the external of the other, has to my knowledge been tied, without rendering the ultimate object more safe or successful. The application of a tourniquet, too, in many cases, rather adds to the danger and difficulty of the case. The incisions of the skin ought to be made with rapidity, and in the direction of the fibres. The surgeon is much to blame if he shows any deficiency in manual dexterity and quickness, for natural capabilities may be much improved. The old writers add to *tuto* and *cito*, as requisites in a surgical operation, the adverb *jucunde*. Now, certainly, no such procedure can be pleasant; but it is well that it should be done with as small an amount of pain as possible, and that of short duration. Thus an operation becomes gratifying to those who witness and assist in it. It is the fashion to decry operations, and those who can perform them with more than usual dexterity. Some would have it believed that operative dexterity and scientific know-

ledge are incompatible; but rest satisfied, Gentlemen, that this is but a silly excuse for want of skill on the part of those who resort to such statements; arguments they have none. "Dexterity and boldness follow judgment and skill, as closely as the shadow does the substance," and scientific knowledge and operative dexterity should always be conjoined. The art of operating requires great and intense study, great knowledge of relative anatomy and pathology. The sight, the touch, the mode of manipulation, are all to be improved by practice. Many who enter the profession do not take the trouble to improve themselves in these matters, but no one is entitled or qualified to undertake operations, unless he qualifies himself to perform them in the best possible style. It makes a mighty difference to a patient, whether he is under the operation for stone one minute or twenty,—under that for removal of the maxilla five minutes or one hundred and five. How patients survive after such cruelties as are now and then perpetrated upon them, it is not easy to imagine. One would think that a man could scarcely survive after being even *tickled* for an hour. It is only those who are themselves lame and impotent in such works as can be judged of by ordinary observers, that declare operations to be beneath the notice of scientific men, and they, forsooth, these bunglers in their trade, would wish to be thought the *only pure scientifics*. It is a piece of mean and paltry trickery beneath contempt. The individuals who prate so much about science, could perhaps, if asked, with difficulty define what it means, as applied to medicine.

I know the animal calling itself a "scientific man" in our profession full well, and never wish to see one of the species again. It does not exist, I presume, on this side the Tweed. It looks wise and dignified, and pretends to see further into the heart of a millstone than its neighbours. He (shall we give it a sex) is naturally deficient in dexterity; "all his fingers are thumbs," to use a common expression in the north. He has never been at the trouble to acquire any use of his hands; he has thought it beneath his notice. He has, moreover, such a plentiful lack of judgment, that he is totally incapable of devising or executing any operation of consequence, without committing a gross outrage on the feelings and sympathies of the spectators. He pretends to great sanctity, is an adept in cabal and intrigue, and is prompt in depreciating the talents of those in his own line who may be "struggling for life amongst the waters." Was it ever alleged that an accomplished leader of an instrumental band, because by intense study he had acquired a fine touch, great dexterity in fingering his instrument, and by his style of bowing could give grace and expression to his performance, was ignorant of music, incapable of composing, of writing a score, or of arranging an accompaniment? If a painter is superior in the essential part of that science, the art of drawing, does it follow that he is ignorant of colouring, and of some of the minutiæ, of scumbling, glazing, &c.? Certainly not. It is absurd to make the supposition.

I have said already that there is an absolute necessity, with the view of ensuring a speedy and successful termination to an operation, that a proper plan be previously fixed on, and communicated to all concerned. After all, every thing depends upon the proper planning of any operation: much more upon the head than the hand. But the instrument must be able and ready to execute what the judgment directs. If a person set about a difficult surgical operation, who does not possess minute anatomical knowledge and a correct idea of the condition of parts, as altered and displaced by disease; if he have not considered well the mode of proceeding, and the resources he may possess, he must soon lose confidence in himself, and be betrayed into hesitation at the first appearance of danger; "he will be interrupted, startled, and perplexed with every new occurrence. He has foreseen nothing, provided for no accident, and every accident alarms him. He moves fearfully and timorously forward, like a blind man, who walks with an air of confidence on an accustomed road, but when any new object presents itself, or the road is changed, is bewildered, and lost."

This is a quotation from one of the most lively and interesting writers on surgical subjects, the late Mr. JOHN BELL, but as it is from memory, I cannot pretend to say from which of his works it is borrowed. The advantage of having an operation well planned, was, I believe, never better exemplified than in the removal of the tumour which this painting and wax cast represent.

It is large, and awkwardly placed, and from its appearance you may believe that it was exceedingly well supplied with blood-vessels, — that its circulation was very active. The disease was attributed to a sharp blow on the cheek, received six or seven years before her application to me; she was then about thirty-three years of age and in good health: during pregnancy, eighteen months previously, it had gained ground rapidly. It involved the whole of the superior maxilla and the os malæ.

You would suppose that the patient must have lost an enormous quantity of blood in any attempt at the removal of this

morbid mass; that there must necessarily have been such an hemorrhage as would prove dangerous to life,—perhaps be instantly fatal. Such was not the case; not more than ten ounces of blood was spilt, and the operation was all completed within a very few minutes: the patient was not six minutes in the theatre. This was solely attributable to the plan previously laid down and followed out. An assistant, my friend Mr. DUNCAN, now house-surgeon in this hospital, was ready to compress the common carotid: the soft parts were divided from over the nasal process of the superior maxillary bone in the line I now trace on this cast; the incision was carried into the angle of the mouth. The alveolar process (the two central incisors having been previously extracted), the palatine plate, and the nasal process of the maxilla, were then cut with the forceps. An incision was carried along the upper surface of the tumour under the inferior eyelid to over the junction of the os malæ and frontal bone, and prolonged from that in the line of the zygoma, to near the auricle. The bones were then cut into the spheno-maxillary fissure and through the arch,—all this was done with but little interference with the vascular supply. The connexion being loosened, and the tumour shaken to its base, the soft parts underneath were divided and the mass was turned out without difficulty. The patient, who had borne all this with the utmost courage and without a murmur, was removed from the sitting position and laid on a mattress on the operating table, with the view of preventing syncope, and the bleeding vessels were secured. Nothing seemed to interrupt the recovery. The deformity is much slighter than would be imagined. The patient returns to have a palate filled by my friend Mr. NASMYTH, next summer, when a cast as in her improved condition will be obtained.

I should have wished to read to you the minutes of that very interesting case of tetanus, and to have entered on the subject of hemorrhoidal disease, but our time will not admit. Next Saturday I shall assuredly bring them under consideration.

CASE OF

PERFORATION OF THE INTESTINES,

By THOMAS GORDON HAKE, *M. D., and one of the Physicians to the Brighton Dispensary.*

A GIRL, named Ellen R., of the age of twelve, delicate in frame, but in the enjoyment of excellent health, until within six months before the invasion of her fatal illness, with the exception of an occasional attack of sore throat, became, in November last, a patient of the Brighton Dispensary. During the previous half-year, she had experienced, to use her own words, a "jumping sensation" in the lower part of the bowels; she was also listless and drowsy, and, without holding to some fixture, was unable to stand erect. The whole of a numerous family to which she belonged had lived for a period of four months almost exclusively on pork. At that time many pigs had died in the vicinity of our town; many, too, which would otherwise have soon perished of disease, were killed, "for the purpose (to

repeat the vulgar expression) of saving their lives."

Since that time several of the younger branches of the family have been visited by various congestions of the brain, bowels, lungs, larynx, &c., but all save one have recovered; and on the history of her disease it is that we have now entered.

After having partaken one day of her usual meal, she vomited with great violence, but before this she had complained of pain in the situation of the lumbar vertebræ. Pain in the left side succeeded, which was augmented by pressure and the act of respiration. There was difficulty in breathing; the dull sound, crepitous rale, pyrexia, &c., were present, together with vomiting of a frothy liquid.

The above symptoms not having yielded to the usual remedial measures in less than three weeks, were, at the expiration of that time, followed by *pain in the left iliac region, sudden, violent, and increased by pressure*. The pain rapidly spread itself, and was accompanied by tenderness over the whole abdomen, which for some days remained soft, but finally became hard and tense. There was occasional borborygmus; and the bowels were constipated while they remained soft; when they became hard, there was no difficulty in acting on them by means of purgative medicines. *The countenance was changed; there was vomiting of a frothy fluid.*

The disease thus invaded the system. The tongue at this period became, and continued, of a natural colour; there was loss of appetite, and thirst; and the stools were of a dark-brown appearance, and fetid odour.

The rhythm of the heart was perfect; the pulse large, strong, frequent, equal. The veins were well developed; the blood drawn from them was dark, buffy, cupped.

Except one night, after taking a large dose of calomel and opium, the perspiration was abolished. The urine was in diminished quantity, and of a high colour.

There was general atrophy.

The pain in the abdomen, at one time, was nearly subdued, but the countenance remained contracted without intermission. There was pain of the head and eyes, less severe, however, than during the attack of pneumonia. Deafness manifested itself during three or four days, and disappeared, the symptoms being then at their height. The sense of smell was perverted, suffering from an unpleasant state of excitement, until it ultimately was lost. The intelligence of the brain was diminished, its imagination deranged, except at such times as the sufferer might be addressed in a sharp tone. The intellectual functions were delirious, especially during slumber.

The patient complained of pain and cramp in the hip; the thighs were raised on the pelvis; there was snatching of the bed-clothes. *There had been occasional shivering, from the invasion to the termination of the malady.*

On the evening of the second day previous to dissolution *there was vomiting of a seroso-purulent fluid, mixed with intestinal matter*; this continued at intervals to be thrown up in large quantities, during the whole night. On the next day this last symptom was unabated, but on the following morning had ceased, a few hours after which the child breathed her last. From the time that the stercoraceous vomiting commenced no stools were produced by the natural channel.

A considerable quantity of calomel had been administered during the progress of the disease; but while the constitution of the child resisted mercurialization, the mother, who constantly slept with and nursed her, was severely salivated; and the gums of a second attendant were affected as if by infection.

Autopsy.—The body was examined by Dr. Hake and Mr. Rugg. The result of the investigation was such as might have been expected from the prominent symptoms. An abscess had formed in the cavity of the pelvis, extending into the inguinal and iliac regions. A false membrane, of a dense, tough, nature, formed the walls of this abscess; it was adherent to the intestines, and separable only at the right iliac region. On its internal, free surface this membrane possessed the characters of mucous tissue. Adhering strongly to, and, indeed, lost in the peritoneum itself, towards the abdominal parietes, the bladder, uterus, sigmoid flexure, iliac vessels, &c., this false membrane was easily separated from the peritoneum at the ileum, with the interior of whose canal it communicated by means of a neat, regular opening, which one might have supposed to have been the work of the scalpel instead of the ulcerative process, a true characteristic of the disease. The contents of the cavity were seroso-purulent, mixed with intestinal matter. This fluid was also abundantly discovered in the intestines and stomach.

In various parts of the jejunum and ileum there was atrophy of the mucous and muscular coats, to such an extent as to leave only a thin transparent membrane, which had contracted on itself, leaving the canal of no greater caliber than double the capacity of a goose-quill. Atrophy, indeed, may be said to have here gone on

increasing until absorption was complete, leaving only the elastic cellular coat of the canal. Inflammation was seen in occasional patches on other parts of the intestines, but no other vestige of it was left on the peritoneum than in the false membrane described above.

In the mesentery there was a small cyst of a dense structure, and containing concrete pus.

Brighton, Jan. 7th, 1835.

SEVERE INJURY TO THE EYE.

To the Editor of THE LANCET.

SIR,—Should the accompanying case be considered worthy of a place in your influential Journal, I shall feel obliged by its early insertion. It is, I think, particularly interesting; more especially as the cure was effected without the use of the lancet, for, in similar cases, and frequently where the inflammation has been of much less severity, the sight has been entirely lost, when used to an indefinite extent. I am, Sir,

Your obedient servant,

J. H. HORNE,

5, Gerrard-street, Soho, Surgeon, &c.

Jan. 3, 1835.

Case.—Mr. G., ætat. 35, foreman to the Thames Iron Foundry, St. Luke's, was conveyed to my house about four hours after the receipt of the following accident, which occurred in the afternoon of the 10th December 1834. As he was engaged pointing out some alterations to be made in a piece of casting, a fellow-workman, who was occupied a few feet from him, inadvertently knocked off a blunt piece of iron, weighing nearly eight ounces, which struck his right eye with immense force. The whole of the power fell upon the globe of the eye; which would have been crushed to atoms had it not been for the yielding texture of the organ, and the cushion of fat at the bottom of the orbit. On examining the eye, it presented one mass of inflammation. Some blood had gushed from a small wound in the upper eyelid; and, four days after, when the inflammation had in part subsided, I found that the iron passed through the eyelid to the outer surface of the cornea and sclerotic, causing a wound half an inch in length, passing posteriorly and upwards. Had the iron been pointed, the force would have been sufficient to pierce through the globe, the bony substance of the orbit, and into the brain.

The patient laboured under great depression of spirits, the pulse scarcely beating sixty, small and weak. This circumstance I considered as very favourable to the future recovery of the sight, regarding it as dependent on a mental cause, viz. fear that he should lose his sight, and, therefore, not indicating any physical injury to the nervous system, serving to moderate those active inflammatory manifestations which might otherwise have occurred. With this view of the case, I directed twelve leeches to be applied at a short distance from the injured eye, by which means, from the peculiar debilitating action they produce over the whole frame, and by their repetition we are enabled most effectually to keep the system, throughout the inflammatory stage, in the same low condition. This action, well known as it is, is generally not sufficiently taken advantage of.

Two tablespoonfuls of the following aperient mixture of powder were ordered to be taken every three hours. *Pulv. Jalap. Co., Tinct. Hyoscyam., aa* ʒ ij; *Aquæ* ʒ x. M. *Calomel.* grs. ij; *Tartar Emetic* gr. ½; *James's Powder* grs. iv. M. Fiat pulv. Hot poultices to the eye. Tea, toast, and water, *ad libitum*.

Dec. 10. Pain in the eye and head much decreased; inflammation *in statu quo*. 9. P.M. Slight increase of pain, with slight increase of the pulse, which I attribute to the aperient having acted rather too violently, between twenty and thirty stools having been passed since the commencement. Ordered Hirudines vj to temple.

11. Pains decreasing; pulse low and quiet; bowels copiously relieved, about four times. Continue the medicines.

12. Almost free from pain; mouth tender; discontinue the calomel powders, and take two tablespoonfuls of the solution of sulphate of magnesia, 4ta q. h.

13. Inflammation rapidly decreasing; the cornea now appears collapsed and corrugated. 11. P.M. Not so well; bowels confined. Ordered *Pulv. Jalap. Co.* ʒ j, stat.

14. Perfectly easy; pulse scarcely perceptible. Diet, bread and milk; up to this period he had only taken dry toast.

15. Natural appearance of the eye returning; the hot poultices to be continued.

17. Can distinguish flame.

The further progress of the case need not be detailed. Suffice it to state, that up to the 2nd of January, the sight has been gradually improving, and he is now able to discern an object at some considerable distance. The purgative is continued daily, for it is a fact well deserving of notice, that immediately the purgative ceases to act, especially at the beginning of the attacks, the pain increases, beautifully illustrating the force of counteractions.

THE LANCET.

London, Saturday, Jan. 10, 1835.

THE renewal, by Dr. ASHBURNER, of his attempt to continue the delivery of a course of lectures at *St. Bartholomew's Hospital*, has led, as might have been expected, to scenes presenting great excitement and disorder. We have only adverted to this affair on one occasion, excepting in our reports from the hospital, because we were quite satisfied that the students themselves were the best judges of the capabilities of Dr. ASHBURNER to afford them a sufficient degree of knowledge in the obstetric department of medicine. It is not, we believe, imputed against the pupils of Dr. ASHBURNER that those gentlemen have been actuated by any factious or improper motives. At the commencement of the session the lecturer was received with applause, and it was not until the patience of the class was completely exhausted that a feeling of hostility was displayed against him. Was it to be expected that an absence from the lecture-room of a few weeks duration would enable Dr. ASHBURNER to collect such a quantity of materials that (his store of knowledge being sufficiently increased) he could proceed with satisfaction to the improvement of his auditory? But it would appear, by what has been stated in our reports from the hospital, not only that there were things to be collected, but that it was also essential that certain peculiarities of mind and manner should be rendered less conspicuous. The doctor must himself be an apt pupil, if, in the course of a few weeks, he was capable of mastering those essential acquisitions and dispensations which would render the renewal of his lectorial duties a source of pleasure or benefit to the pupils.

We are now informed by Mr. STANLEY that the governors of the hospital have determined that the lectures shall be put on a "better footing." The expression is vague; and we can place no reliance on any such declaration, unless the mode of accomplishing the object which the governors have in view is distinctly explained. One of the regulations of *St. Bartholomew's Hospital* requires that the lecturers shall be chosen from the medical officers of the institution; but the framers of the law never could have designed that when those officers were found incompetent to execute the duties of a lecturer, the very letter of such a regulation should be adhered to in the selection of a teacher.

Hence it has happened in the instance before us, that as there was no officer in the hospital who was believed to be capable of filling the office of lecturer on midwifery, a gentleman who had no official connexion with the hospital was installed as the teacher of that important branch of medicine. If, however, it be discovered that the choice is injudicious, that Dr. ASHBURNER is incompetent, and, hence, that the pupils have just cause to be dissatisfied, there certainly can be no difficulty in permitting him to go back into a state of quiet retirement, and at the same time afford to the students an opportunity of selecting a gentleman before whom they may take their seats in the lecture-room with pleasure and confidence.

Here, then, is a fair opportunity of acting on a principle of concours or competition in the election of a lecturer on midwifery at a public institution. Three or four gentlemen of acknowledged ability might be presented by the governors to the class, when the pupils, having heard two or three lectures from each of them, might decide, without the slightest degree of confusion and acrimony of feeling, on the candidate from whom they had reason to believe they should receive

the largest share of instruction. The stimulus afforded by such a comparison would necessarily be widely extended in the profession, and gentlemen of ability, on finding that an opportunity of this kind would every now and then be afforded to them for a display of their knowledge, would be induced to labour in the pursuit of knowledge with unabating ardour and zeal. Incentives of this description are sadly wanting in our public medical institutions, the choice of teachers at present depending, in almost all instances, on feelings which arise from family connexions, or from the still more reprehensible inducement of pecuniary contribution.

But it may be urged, that the students, from want of an acquaintance with the subjects to be taught, would not be qualified to judge of the relative acquirements of the candidates. That may be true. Still it must be recollected that the mind of a man may be stored with a vast quantity of knowledge, while there is wanting in him those requisites which are indispensable to the successful execution of the duties of a teacher. His voice may be disagreeable, his manner awkward, his matter ill-arranged, his subjects ill-chosen, and, in addition, he may fail to exhibit such a degree of spirit and energy as would assure his hearers of the value and fidelity of his discourses. In deciding, therefore, on the merits of a teacher, after the *mental* qualifications of the candidate have been ascertained by some efficient mode of examination, the students should have the privilege of determining, in all our public medical schools, whether the candidate is possessed of those peculiar requisites which would render him an efficient occupant of the professorial chair. Such a mode of conducting the elections of public medical teachers would be infinitely advantageous and satisfactory to the students themselves, and would produce throughout the profession the various important benefits which are ever sure to arise from rendering available to genius and laborious study, those honourable distinctions, which men of great endowments must ever be anxious to secure.

While thus reflecting on the disagreement at *St. Bartholomew's Hospital*, we are induced to believe, that although it is productive of much angry feeling, while it lasts, it will eventually confer on the profession and the public, a degree of benefit which the chief actors in the affair did not anticipate would be the result of their opposition to an incompetent teacher.

A Treatise on Tubercular Phthisis, or Pulmonary Consumption. By J. Clark, M.D., F.R.S. London, Marchant, 1834. pp. 88. (Republished from the *Cyclopædia of Practical Medicine.*)

In a former Number of The Lancet, when reviewing the first fasciculus of Dr. Carswell's "Illustrations of Morbid Anatomy," we took occasion to discuss at some length the pathological anatomy of scrofula, and more particularly of phthisis pulmonalis, as Dr. Carswell, in that unequalled work, not only presented the latest researches of Laennec, Andral, Louis, and other continental pathologists, in a clear and permanent light, but also carried the investigation of tuberculous diseases much further than any of his predeccssors. Similar reasons now induce us to call attention to Dr. Clark's Treatise, which, as regards the etiology, diagnosis, prevention, and treatment of phthisis, is equal, in a practical point of view, to anything that has appeared on the subject. Not confining himself to merely writing the history of the morbid changes in the lungs, or describing the distressing symptoms of this disease, when its character is distinctly unveiled, and when the patient is irremediably in its power, Dr. Clark has directed all the present improved methods of diagnosis,

and all his opportunities and powers of observation, to the detection of the first deposition of tubercles in the lungs; has endeavoured to distinguish the state of the system which precedes the tuberculous secretion, and the circumstances under which tubercles are developed, or most rapidly prove fatal, in order to give effectual directions for the employment of medicines, change of climate, external influences, and habits of life, calculated to arrest the incipient disease in the individual, and, by obviating the hereditary transmission, to diminish its frequency.

Dr. CLARK divides phthisis, as other writers have done, into three stages, the symptoms, physical signs, and morbid anatomy of which, are very accurately sketched. The remarks on the *physical* signs we extract:—

"In the first stage these are, unfortunately, often obscure, though this will depend on the extent of the tuberculous matter, and the manner in which it is deposited. If it be in small quantity, or diffused pretty generally through the lungs, little light will be thrown on the disease by auscultation; but when it is more abundant, and deposited, as it generally is, in the summit of the lungs, auscultation assists us greatly in detecting the real nature of the disease in doubtful cases. The sound elicited by percussion, when delicately performed, will often be found clearer under one clavicle than the other; the respiratory murmur, heard through the stethoscope, will be less soft and free where the duller sound exists, and the resonance of the voice greater at the same place. Unless, however, there is an obvious difference between the sounds heard in the relative situations on both sides, the signs afforded by auscultation are not much to be depended on at this early stage of the disease; and in many cases we have to form our opinion of the patient's condition, from the local and constitutional symptoms only. In other instances, however, with the same symptoms, the physical signs afford the most unequivocal indications of the existence of pulmonary disease. The sound elicited by percussion is evidently less clear under one clavicle; the respiration less soft and easy, and the voice decidedly more resonant, than under the opposite clavicle; and even at this early period, the motions of the upper parts of the chest, carefully observed during inspiration, may often be remarked to be unequal, one side of the chest being more fully expanded during inspiration than the other. When this is the case, it will generally be found that the side least elevated is that which gives the most evident signs of the existence of tubercles. When the tuberculous matter is diffused over a large portion of the lungs, puerile respiration occasionally indicates its presence. A marked inequality in the sound of the respiration in different parts of the chest, also affords strong suspicion of tuberculous disease, when such inequality cannot be otherwise accounted for."—p. 8.

"A careful examination of the chest in the second period, when the tubercles are softened, affords positive evidence of the internal mischief. The upper parts are less freely raised during inspiration than in the healthy state, and this is frequently more evident on one side than the other. The sound, on percussion, is dull under both clavicles; and on applying the stethoscope or ear to the chest, a slight crackling noise (*crepitating rhonchus*) is heard, while a gurgling sound (*cavernous rhonchus*) is frequently produced by coughing. The voice is more resonant, amounting generally to bronchophony, and distinct pectoriloquy is often heard in one or more points of the clavicular or scapular regions. All these indications are very generally more evident on one side than the other; and hence, in obscure and complicated cases, arises the advantage, and even the necessity, of attending more particularly to this circumstance, in order to enable us to establish our diagnosis with more certainty and precision."—p. 9.

"The chest, examined at the *advanced period* of the disease, is found to be remarkably changed in its form; the shoulders are raised and brought forward; the clavicles are unusually prominent, leaving a deep hollow space between them and the upper ribs; and the chest is flat, in place of being round and prominent. The clavicular regions are nearly immoveable during respiration; and when the patient attempts to make a full inspiration, the upper part of the thorax, instead of expanding with the appearance of spontaneous ease peculiar to the healthy state of the lungs, seems to be forcibly dragged upwards at each effort to accomplish it. Percussion gives a dull sound over the superior parts of the chest, although the caverns which partially occupy this part of the lungs, and the emaciated state of the parietes, render the sound less dull than in the preceding stage. The stethoscope affords more certain signs; the respiration is obscure and in some places inaudible, while in others it is particularly clear, but has the character of the bronchial, or tracheal, or even the cavernous respira-

tion of Laennec. Coughing generally gives rise to a gurgling sound (*gargouillement*); and pectoriloquy is more or less distinct, for the most part on both sides, although more marked on one than on the other. In this state the patient may still linger for many weeks, or even months, reduced to a perfect skeleton, and scarcely able to move in consequence of debility and dyspnœa."—p. 10.

These observations appear to us to be very just; and, coming from a friend of Laennec, and an accomplished British auscultator, merit great attention.

Phthisis, contrary to the general conviction in this country, is more frequent in childhood than in after life. The mortality it induces in the third and fourth year is very great; few are born tuberculous, or become consumptive in the first year; in the sixth, seventh, and eighth years, seven-tenths of those that die contain tubercles; at least, these are the proportions found by Dr. Papavome at the Children's Hospital in Paris, and there seems good reason for believing that the proportions are not very different in this country.

"Phthisis at this early period of life differs somewhat from the disease in adults, both in its situation and symptoms. The cough which attends the consumption of childhood is very often of a different character from that which accompanies the disease in persons of mature age; it frequently occurs in paroxysms, resembling hooping-cough, and is rarely attended with expectoration till a late period of the disease, and very frequently this latter symptom is entirely wanting, from the matter being swallowed; so that we are deprived of the light which the character of the expectoration might throw upon the nature of the disease. Hemoptysis is also a rare occurrence; at least, we do not recollect to have met with any case in which it was present. The hectic fever is likewise less perfectly formed, and the perspirations are generally less than in the adult."—p. 15.

The section on the diagnosis of phthisis examining each particular symptom separately, is one of the best in the book, and displays a familiar acquaintance with the subject, accuracy of description, and great discrimination of morbid character, while the care and acuteness with which symptoms are associated with the internal structural changes, prove that the writer duly appreciates the discoveries of modern pathologists. The article "cough" is especially comprehensive.

The statistics of phthisis are treated at some length; and have evidently been investigated with much industry and considerable ingenuity. For this section Dr. Clark states that he is indebted to Mr. Fergus, who contributed a very able article to this Journal, on the breaking out of cholera in Vienna.

Concerning the causes of tuberculous disease, Dr. Clark entertains some original views, to which we would call particular attention. He asserts the hereditary nature of phthisis, and proceeds so far as to pronounce that a parent labouring under tuberculous cachexia entails on his offspring a disposition to the same affection, proportioned to the degree of disease under which he labours; that gout, cutaneous diseases, the injurious influence of syphilis, or long courses of mercury, on the constitution, debility from disease, age, in short, a deteriorated state of health in the parent, from any cause, to such a degree as to produce a state of cachexia, may give rise to the scrofulous constitution in the offspring; that dyspepsia is the most fertile source of cachexia of every form; and that improper diet, impure air, deficient exercise, and other causes, may induce this state of the system, and the consumptive diathesis in persons born free from all hereditary taint.

Dr. Clark's view of the general pathology of phthisis is founded on observation; at once liberal and philosophical, and applicable to the direction of practice; but the speculations on the vena portæ and abdominal congestions appear, in their present form, to be hypothetical, and the general principles laid down in other parts of the work render them to acertain extent unnecessary. Stahl, in 1698, published a book, the title of which became the rallying cry of his followers,—*Vena portæ, porta malorum*! (a very tolerable pun, it must be admitted, but not a very auspicious inscription for a scientific theory), and the Stahleans sought the origin of almost all chronic diseases in the vena

portæ, because the blood circulated most slowly in that vessel; at the same time they utterly denied that the fluids, and particularly the blood, underwent any alteration. Subsequently the doctrine of abdominal *infarctus* was made by KAEMPF the ground of his treatment by clysters; but we believe that his opinions were little known in England, or were used as a conventional explanation, rather than considered as] explanatory of cachexia of every kind, before Dr. CLARK gave them, with a little reservation, the sanction of his authority.

Stahl's doctrine was suggested by the connexion observed between hemorrhoids and chronic diseases; and we have no doubt that Dr. Clark has met with many facts of which the theory at which he glances affords the general expression, if not the explanation, of congestion. Dr. Clark should publish all the facts, which prove the existence of abdominal congestion, of more than the due proportion of blood in the large or small vessels of the vena portæ, and describe the manner of distinguishing whether this is the consequence or the cause of a general morbid modification of the fluids and organs of the body. If the blood in the vena portæ can be measured, it will not be difficult to ascertain whether variations in its quantity produce tubercles; but if congestion be found only in the capillary vessels, or if *altered secretion* be taken as a proof of this, reasoning from analogy, and from what we see in scrofulous ophthalmia and glandular swellings, ought we to conclude that these congestions produce what Dr. Clark has termed "tuberculous cachexia," or that they are the first passage of this state into actual disease?

Extensive experience has taught Dr. Clark that in England, in the south of France, and in Italy, phthisis, when far advanced, is equally fatal to the majority of those whom it attacks; and the same experience appears to have produced in his mind the persuasion that at an early period it may, to a considerable extent, be prevented. Accordingly, the means of accomplishing this object are discussed with much care and originality, as regards, 1st, parents; and, 2nd, children, in infancy, childhood, and youth.

The hygienic treatment employed according to the precepts in this section, is certainly of importance, and is most likely to stem the hereditary tendency to the disease, and to protect the healthy constitution from its inroads; but we must refer the reader to this part, and hasten to enumerate some of the remedies recommended by Dr. Clark in the bad state of health, or the tuberculous cachexia which usually precedes the distinct manifestation of consumption. The order and particular states in which these substances should be prescribed, are carefully distinguished. We can only extract a few unconnected notices.

Mercury.—Dr. Clark gives the preference to the milder preparations, such as the hydrargyrum c. creta.

"This or the pilula hydrargyri, given in such doses and at such intervals as shall prevent its producing irritation of the mucous surfaces of the alimentary canal, and followed by the employment of some gentle laxative, will be very useful in all those cases in which an imperfect biliary secretion and a torpid state of the bowels are prominent symptoms. It is usually, and we think very properly, prescribed in combination with some narcotic medicine, such as hyoscyamus or conium; and, in our opinion, it should always be followed by an aperient."

"*Taraxacum.*—We consider this a very valuable medicine in tuberculous constitutions. * * After a few doses of mercurial alteratives, a course of taraxacum, steadily pursued for several weeks during the spring or summer, will often produce a very beneficial effect. * * We usually prescribe the extract in combination with some tincture of hops and aromatic water."—p. 70.

"*Sarsaparilla.* — We have frequently found this of service after a course of mercurials or taraxacum, but we think its effects are less salutary when the internal secretions have not been previously improved. It is in a defective state of the cutaneous functions that we prescribe it with the greatest expectation of benefit."—p. 70.

Antimony and *sulphurous waters* are commended in certain cases.

"*Mineral Waters.*—In strumous habits affected with great abdominal plethora, a defective state of the biliary secretion, and an unhealthy state of the skin, no

remedy with which we are acquainted is so well calculated to produce a full alterative effect on the whole system, as a well-directed course of mineral waters. The waters of this class from which we have observed the most marked benefit, are those of Ems, of Carlsbad, of Marienbad, and of Eger.

"During the use of all the alteratives we have noticed that the *warm-bath* will be productive of considerable benefit."—p. 71.

The directions for the employment of purgatives, tonics, bathing, travelling, sailing, and climate, deserve the consideration of all who are engaged in practice.

In the treatment of phthisis, the effects of blood-letting, emetics, digitalis, iodine, climate, and local remedies, such as local bleeding, counter-irritants, tar-vapour, chlorine, iodine, and gases, are elaborately discussed.

"*Blood-letting.*—Where there is pulmonary congestion, a moderate bleeding will always, we believe, be useful; and when employed as soon as the congestion is evident, will often prevent hemorrhage and inflammation, and perhaps the deposition of tuberculous matter."—p. 75.

"We have a high opinion of the beneficial effects of local bleeding in cases of this kind, and believe that the abstraction of small quantities of blood from the chest, by cupping, will be the most effectual way of relieving the inflammatory action which accompanies tuberculous disease of the lungs, after congestion of the large vessels has been diminished by one or more general bleedings.

"*Emetics.*—Morton, Simmons, Parr, Bryan, Robinson, Reid, Marryatt, Bayle, and several eminent practitioners, have recommended emetics in phthisis; and Dr. Clark strongly urges their trial, in order to prevent the localization of tuberculous disease in the lungs. He endeavours to explain their modus operandi, by the fact brought to light by Carswell, that tuberculous matter is poured in a fluid form into the air-cells and bronchi, from which the vomiting may procure its ejection. Should cough be provoked on the same principle?"—p. 75-78.

It has been calculated by Dr. Young, that one in four of the inhabitants of this country perish by consumption; one in three, perhaps, contains tubercles at death; and as the population of England and Wales amounts to about 13,000,000, and the annual number of deaths to 290,000, the deaths from consumption must be 72,500; or, on an average, 33 individuals die in England and Wales every hour, and of these eight have ulcerated cavities or tubercles in the lungs. Again; phthisis is a chronic disease; and, from data collected by Bayle and Louis, its average duration has been calculated, in the present work, to be two years. There must, consequently, exist amongst us a phthisical population of 145,000 souls, constantly suffering from one or other of its symptoms, some with the first hectic flush on the cheek, others lying in the last stage of emaciation, and all requiring the aid of the medical profession. If, in addition to this, we call to mind the severe cases of scrofula, lumbar abscess, spinal disease, white swelling, and kindred affections, where tuberculous matter is formed, the general pathology and treatment of which are regulated by the same principles, we shall perceive the importance of directing our especial attention to this class of disorders, and shall come to the conclusion, notwithstanding the prominent place phthisis occupies in medical literature, it scarcely receives, at present, its due share of investigation and study.

In concluding this article, we must pay our tribute of praise to the authors of two monographs on phthisis; the one, now no more, shone amongst the brightest ornaments of science, and of British medicine; the other is still pursuing his interesting career in Paris. The work of Dr. Young on consumption will long remain an unparalleled monument of professional learning and judicious criticism; while "La Phthisie," by Louis, offers a philosophical history of that disease scarcely to be surpassed for its comprehensive detail of facts, methodical analysis, or accuracy of induction. Dr. Young, however, although he was afflicted with phthisis himself, and was cured at an early age, has not always written like one familiarized by practice with its various phenomena; and Louis has paid less attention to the treatment and practical application of his principles than is expected from a medical writer in this country; so that we strongly recommend Dr. Clark's treatise, as it sets the general pathology and hygiene of this disease, as well as the principles of its treatment, in the clearest light.

INTERCEPTED LETTER.

"Dear Sir James, — A thousand thanks for your very satisfactory letter, and prompt attention to my wishes. Much as I feel annoyed about the puff system, and ever anxious as I am to preserve the respectability and integrity of the profession, yet your position is to me particularly distressing, as I am perfectly aware that the subject of our correspondence is indebted to your persevering industry and high moral feelings for the unexampled patronage which he has obtained. Before, however, I can make out his case clearly, so as to bring it before our College, it will be requisite for me to possess certain documents, which I request you will confer on me, as well as on the profession generally, the favour of forwarding. I want copies of any documents, or references to such authentic sources as you may be acquainted with, as will enable me to lay before the College proofs of the correctness of the line of conduct which I may feel confidence in recommending them to adopt. This will form an excellent case to bring before Mr. Warburton, to convince him how eager the College of Physicians is to suppress quackery, regular and irregular, et cetera, et cetera, et cetera. Dr. Gardner has called upon me to consult me about the most prudent measures he could take to do away with the unfavourable impression which the puff-paragraphs have made on many of his friends, from his name having been so disreputably associated; and since I last had the pleasure of addressing you, I have had this puff-system most severely reprimanded in the case of Lady Manners Sutton, the wife of that inestimable man, the speaker of the House of Commons. I was attending her with Mr. Guthrie, and two paragraphs, which you must have seen in the newspapers, and which, doubtless, were sent by Mr. G., purporting to be bulletins of her ladyship's illness, though, being in truth, nothing else than a part of the puff-system, were so hurtful to her ladyship's feelings, that she politely requested him to discontinue his attendance, or, in other words, to make a *quiet retreat!*

"You have hinted that amongst your kind offices to Mr. Guthrie, was the employment of him to give *certificates*. Enough has been said on the certificate system to urge you to inform me of all particulars on this point, and I have a painful satisfaction in thinking that Sir Astley does not stand alone as a certificate-manufacturer.

"Whenever I am favoured with the necessary credentials, I will call a special meeting in Pall Mall East, to deliberate on this unfortunate case. I have just got a hurried message to fly to Apsley House upon an election matter which interests me. So believe me in haste to be ever yours,

"H. H."

"Dear Sir Henry,—I feel it my bounden duty to render every assistance in my power in the investigation, and I send you forthwith the testimonials you require. The letter of Acies was published in an ancient volume of The Lancet, and to this I would particularly refer the Fellows of the College. But there is one document which will be most satisfactory to the Fellows, and of which I enclose you a copy, the original of which is in the possession of the Editor of The Lancet, to whom the communication as you will perceive, was addressed; but which he did not then publish, from the immense body of evidence which he at that time laid before the public, being sufficient, probably without it, interesting and important as it is.

"The following is the document:—

"'Clifton, Jan. 14th, 1829.

"'*To the Editor of* The Lancet.—Sir,—Although I have but recently had an opportunity of perusing the whole of the documents which have been printed relative to the manner in which the business of the *Westminster Eye Infirmary* was conducted, I cannot even now withhold my testimony to the accuracy of the statements published in your Journal as well as to the truth of the observations you have founded upon them, and I shall be gratified by the publication of this letter in The Lancet. Having been *house pupil* to the institution alluded to for twelve months in the year 1821—22, and having, during that time, *constantly resided in the house*, I had ample opportunities for observing what was passing, and I have no hesitation in stating that the manner in which the business was conducted was slovenly and negligent in the extreme. Mr. Guthrie's attendance was very irregular indeed; for, although the hour of visit was ten o'clock in the morning, he used sometimes to come *before that time*, when there was scarcely any one there; sometimes *considerably later*, when most of the patients had gone home, and frequently he *never came at all*. I have often heard murmuring and complaint amongst the patients whilst waiting for Mr. Guthrie, and I know that many of them used to come from a great distance day after day *with-*

out being able to see him at all. With regard to the "Book of Entry," I am sure it was by no means to be relied on as presenting a true statement of the admission of the patients. It used to lie on the table, or in the drawer, which was never locked, and *anybody entered*, or *might enter, any name he thought proper*. With regard to the treatment of patients by Mr. GUTHRIE, I have frequently heard Dr. FORBES object to it, as being generally of too stimulating a nature. Indeed, I have often heard him say, that constitutional treatment was not in his opinion sufficiently attended to at the Eye Infirmary by Mr. GUTHRIE, and I remember that Dr. FORBES in his lectures used to urge this most strongly to the pupils. I have also very often heard Mr. GUTHRIE's stimulating plan of proceeding condemned by those who observed the treatment at the infirmary. Indeed, I have heard the identical Mr. THOMSON himself, then only a student, deliver opinions against Mr. GUTHRIE's plan, and the hurried manner in which the patients were seen by Mr. G. They were admitted from the waiting room to the room wherein the remedies were employed, eight, ten, or more at a time, just as they could push themselves in when the door was opened. A table stood in the middle of the room, and upon it were generally about a dozen highly stimulating solutions, placed in a rack, within reach of Mr. GUTHRIE. A small case of ophthalmic instruments, a camel-hair brush or two, with a tolerable strong solution of the cupri sulphas in water, and some of the cupri sulphas and argenti nitras in cases, scraped to points, were ready for use. The "Book of Entry" lay upon the table, ready for any of the gentlemen present to insert the name, age, residence, and disease of the patient, together with remarks thereon, who might happen to be nearest it. Mr. GUTHRIE was at one end of the table, surrounded by pupils and others, putting and ordering to be put, by one or other, no matter who, various stimulating drops into the eyes of the patients, some for acute and some for chronic inflammation, and rubbing the granulated lids of others with the cupri sulphas or argenti nitras, either in solution or otherwise, without attending much to the constitutional treatment. When a patient came to have his eyes examined, I have frequently seen Mr. GUTHRIE take him by the shoulder with one hand, having a bottle of drops in the other, and say "Here, *putt* him in a drop," *without even looking at the eye.* After the drop was *putt* in, the patient was usually sent to a side-table to bathe his eye with warm water, and sometimes to get some pills, powders, or lotions, which were given out by a person whose name was CAMERON, a dirty, careless fellow, who minded little or nothing whether the patient got the medicine ordered or not. Sometimes Mr. GUTHRIE took the trouble to write for the medicines at the back of the admission-card, but more frequently it was a verbal order, given to myself or CAMERON, which, amidst the general disorder and confusion, was sometimes not understood, or was forgotten, and the patient got *any thing* or perhaps *nothing*.

"'With respect to the subterfuge of Mr. G. about the house-*surgeon*, I send you my own certificate of attendance, *filled up by Mr.* GUTHRIE *in his own handwriting*, and *signed by himself*, several days previous to its receiving Dr. FORBES's signature, in which I am, as I always used to be, designated "house-*pupil*." I never heard of a house-*surgeon* to the institution, nor did anybody else. It is evidently an office of Mr. G.'s own creating for some purpose. The absurdity of designating any pupil who came there for the purpose of learning his profession, house-*surgeon*, must be apparent to everybody, as such a name implies superior qualifications,—such as, I believe, never were possessed by any of the gentlemen living in the house, during the time they resided there. I remain, Sir, your obedient servant,

"'N. BURTON.'"

"With regard to the *certificate* system, you ought to be informed that I never employed Mr. G. to give any certificates as to *character*, on Sir ASTLEY'S principle, but only certificates to the *health* of invalid officers craving leave of absence from their regiments on the plea of indisposition. This appeared to me to be a feasible system, both as a preventive of imposition, and as affording me an excellent opportunity of promoting the interests of my protegé, it being generally understood that Mr. J. G. expected an adequate douceur, from the receipt of which I imagine he never *flinched*. He made a very considerable annual sum by this new certificate system, which, I must do him the justice to say, he had the chief merit of contriving. I confess to you that I carried the system too far, by obliging many officers, who had already 'certificates' from respectable men, and under whose care they were, to go to Mr. G. to be examined by him; and get *his* 'certificate,' which they of course paid for properly.

"But the system did not stop here, and I soon found out that misgivings existed, GEORGE JAMES pretending to be connected with the Board, and insinuating

that his certificates *alone* were sufficient to enable the possessor to pass the turnpike. I found out that they were given with far too little inquiry as to the officers' cases; but I durst not say anything to him upon the subject, he has such a spirit. The said system, however, has become at last intolerable; he is not contented to give merely a 'certificate' of the officer's health, receive adequate remunerations, and, in many cases, attend them afterwards; but he has had the audacity to dictate to me the extent of leave which the officers required.

"As you are at the head of the profession, and are looked up to by all of us for your classical learning and high moral feeling, it would be presuming in me to attempt to point out what is the best mode of your future proceeding. It appears to me, however, that it would be most satisfactory to both colleges, and to the profession in general, to institute a court of inquiry, consisting of professional men, to be conducted upon the same principle as the military court martial.

"Dear Sir HENRY, I again candidly confess to you, that he has such a spirit that I am afraid to meddle with him, and I feel, to my sorrow, now too late, how much I have been harassed and controlled by him in the management of the Board. With the greatest respect, esteem, and regard, I am, dear Sir Henry, yours,

"J. M. G.

"A. M. B. Jan. 5th, 1835.

"P. S. The inquiry ought to be an open one, and the gentlemen of the press have access to it. I have not the least objection to be called on as a witness, and Dr. THEODORE GORDON, one of my coadjutors at the Board, can give important evidence on the occasion."

UNPROFESSIONAL CONDUCT.

To the Editor of THE LANCET.

SIR,—I take the liberty of communicating to you the following particulars, arising out of a case in which, I think, I have just reason to consider myself aggrieved, and which is calculated, moreover, to injure the interests of the profession in general. It is on this latter ground alone that I have been induced to lay the circumstances before you, who have so long and so ably stood forward as the intrepid advocate of the professional community. On the 20th February last, two days after the date of the accident, I was called in to see a boy, son of a Mr. Crerar, general agent, who had got his thigh fractured. From the manner in which the accident occurred, I was apprehensive that besides this fracture, which I readily detected, there might be some farther injury about the neck of the bone, and I therefore requested Professor Syme to see the boy, and give me his opinion as to the latter point. He did so, to the effect that the neck of the bone was uninjured. Once after this he again called on the boy, at my request, *and never but on these two occasions did he see the patient.* I attended the boy till the end of March, when he was quite recovered. On presenting my account to Crerar, the father, a small part of it was paid without *any objection being made to it*, but on applying some time after for payment of the remainder, he refused *now* on the pretext that it was overcharged. I caused him to be written to, stating my willingness to have the account referred to any of the three following gentlemen he might please to select; viz. Dr. Fairbairn, Professor Lizars, and Dr. William Campbell. He replied to my agent by letter, stating, "I shall with pleasure agree to a reference to Dr. Fairbairn, a gentleman of the highest medical eminence, on the understanding that both parties are to obtain a fair hearing, either verbally or written." Dr. Fairbairn, accordingly, having communicated with both parties, and having heard their statements, gave the following report:—"I have examined the above account, agreeable to the wish of Mr. Cowan and Mr. Crerar, as per their letters, and am of opinion, after taking all the circumstances into consideration, that the above account is fairly charged.

(Signed) "PETER FAIRBAIRN, M.D."

Notwithstanding this report, Crerar, in the face of his written agreement, still refused to settle the account, and I had no other resource but to summon him for payment before the Sheriff Court. He there, without being able to assign any sound reason, objected to the report of Dr. Fairbairn, and urgently proposed to the sheriff that the matter should be referred to the decision of Mr. Syme. The sheriff agreed to remit it to that gentleman, to which I at the moment formally objected, as the case had been already decided by the reference to Dr. Fairbairn, a gentleman as competent and respectable as Mr. Syme. I was at no loss, however, to comprehend the urgency of Crerar to have the case remitted to Mr. Syme; for a few days previously he had written me a note offering me a sum, less than one-half of the amount of my account, and stating that Mr. Syme had "*ordered*" him to pay me this reduced sum, in full of all

demands, for my attendance, &c. So here was this pattern of a professor, whom I had simply and respectfully called in for his opinion, privately interfering with my employer, depreciating my labours, and instructing what I should be paid for them, a stretch of indecency obvious to any man having the slightest sense of common propriety. It is also necessary to mention, that Crerar, in court, made several statements injurious to my professional credit and reputation, and for which he affirmed he had the authority of Mr. Syme. Thinking it proper that Mr. Syme should be made aware of what had occurred, I waited upon him on the evening of the same day on which the sheriff made the remit, and showed him Dr. Fairbairn's report, reminding him that he had only seen the case twice at my request, when with an effrontery equalled only by its absurdity, he replied, "You know very well the responsibility of the case rested entirely with me!" On him, indeed, who had only seen the case twice, and who was not *even present at the setting of the limb!* I then told him of the injurious statements by Crerar publicly in court, upon, as he alleged, his (Mr. Syme's) authority, and I requested, if his name had been used without his consent, that he would render me the common justice of giving me a written disavowal of his having authorized such statements. He denied that he gave any authority to use his name, and admitted that the statements alluded to were false and injurious, but he refused to give me any acknowledgment from his hand to that effect. I leave it to every professional man to judge of Mr. Syme's conduct towards me in this interview. I had now to wait to see what course Mr. Syme would adopt, but had not to wait long, for, in a few days, he sent in a report to the sheriff, reducing my account more than one-half; in fact, to the precise amount which he had *privately* and *previously* instructed Crerar to offer me. From the nature of the sheriff court, the cases are disposed of in a very summary manner, and the above report being given in, backed by many misrepresentations of Crerar, it was sustained, and all farther proceedings terminated. Such is a candid account of the particulars of this case, in which I have been so undeservedly a sufferer.

Now, Sir, the points in Mr. Syme's conduct in this affair which merit just censure are, 1st, his officious interference with my employer; 2nd, his actually deciding on the case without ever once communicating with me, or asking to know from me the grounds on which I supported my account, while it was notoriously clear he had had private communications with the other party; and, 3rd, his accepting any reference at all after being made distinctly aware that the matter had been by both parties referred to and reported on by Dr. Fairbairn, a practitioner equally competent to judge as he himself was. I can afford to pass by with contempt the pettish insolence he displayed to me personally, and other breaches of propriety already noted, but in the points enumerated above, his conduct in the first place was characterized both by meanness and injustice, was a mark of disrespect and insult towards Dr. Fairbairn, and calculated, I conceive, to hurt not a little the interests of the profession generally. For if medical men act thus in opposition, reversing so discourteously the judgments of each other, and, in the question of medical accounts, reducing the fair remuneration of the practitioner, what other result can it have than to shake the confidence of the public in the integrity of our profession, and afford to the dishonest a temptation to defraud the practitioner, knowing well his aversion to prosecute; and that if he does, the matter, in all probability, will be decided more or less in *their* favour, and to *his* disadvantage? These results are becoming daily more manifest in this city, and are felt pretty severely by junior practitioners, who are necessarily most exposed to their influence; and who, in not a few instances of this description, have had some cause to accuse the selfishness of their seniors. If one of our professors, who no doubt thinks himself a "Sir Oracle," can, in the example already detailed, so far violate all professional propriety, where are we to look for a reformation of those illiberal and ungentlemanly practices with which the members of our body, in reference to each other, are so frequently chargeable, and which constitute a stigma on the profession. From the repetition of such acts and practices, that community of interest which ought to subsist among us is seriously infringed, and the intercourse with our brethren often rendered unpleasant or unprofitable. It is from no feeling of the injustice which I have suffered personally, except in so far as associated with the general interests of the medical practitioner, that I have communicated the foregoing statements and remarks; and if you should deem them of sufficient importance, their insertion in your valuable Journal will oblige,

Sir,

Your most obedient servant,

JOHN COWAN.

18, Drummond-street, Surgeon.

Edinburgh, 15th Dec. 1834.

ST. BARTHOLOMEW'S HOSPITAL.

THE LECTURES ON MIDWIFERY.

On Saturday, the 19th of December, Dr. Locock having finished the course of Lectures on Midwifery originally undertaken by Dr. Ashburner, intimated to the students his intention of discontinuing to address them, and stated that the obstetric chair would be filled by the gentleman who was first appointed to fill it. He said that he felt highly gratified with the assiduity and attention which the pupils had displayed during the interregnum; and he had no doubt that they would now listen also to Dr. Ashburner with attention, as it was considered that he had not before had a fair trial. He added, that if at any time Dr. A. had not been sufficiently explanatory in his lectures, the circumstance undoubtedly arose from the excitement of feeling induced by his unfavourable reception. He (Dr. Locock) should always remember with pleasure the eighteen nights he had lectured at St. Bartholomew's Hospital.

He then retired from the theatre, amidst applauses.

It was also announced in the hospital, that Dr. Ashburner would resume the lectures after the Christmas vacation; and at the expiration of that period, on Saturday, the 3rd inst., the students assembled at the Anatomical Theatre, a large number of the former having declared their intention of leaving the room if Dr. Ashburner made his appearance. At the usual hour Mr. Earle, accompanied by the rejected lecturer and one of the governors, entered the area of the theatre, which instantly resounded with hisses and hootings, mingled with some plaudits. These continued for a time, and then gradually lapsed into deep silence, when Mr. Earle advanced, and addressed the class to the following effect:—He had not, he said, known, until within the last half hour, that he should be called on to appear on this occasion; but he hoped, that on coming forward on that occasion he should not be regarded as a medical officer of the school, but as a friend of Dr. Ashburner.

It was the opinion of all Dr. Ashburner's friends, that that gentleman had hitherto been unfairly treated; inasmuch as that a sufficient trial had not been allowed him by the class. He was now authorized by Dr. Ashburner to say, that if he had in any way offended the students, either individually or collectively, he begged to offer to them a most ample apology. He (Mr. Earle) would therefore appeal to their love of justice to allow Dr. Ashburner a second hearing. After descanting on the abilities of Dr. Ashburner, and the handsome testimonials which he had presented when the obstetric chair was offered to him, Mr. Earle withdrew.

Dr. Ashburner then came forward, and offered some conciliatory remarks to the pupils; but he had scarcely uttered a sentence, ere a very large number of the students simultaneously left the room, with strong demonstrations of their disapprobation. Some of those who remained applauded, but the marks of disapprobation by no means subsided. Before long, the gas-light was extinguished in the lobby, and the students who had quitted the theatre were placed in total darkness. The utmost confusion followed, and not a word, for some time, could be heard in the theatre, of Dr. Ashburner's lecture. He frequently stopped his seemingly pantomimic harangue, awaiting a subsidence of the noise, but in vain; so several policemen were called in to restore "order;" yet even these conservators of the peace failed in their attempts to enforce silence, and the noises continued until eight o'clock, when Dr. Ashburner, who we understand had delivered a lecture on "Generation," left the theatre, attended to the hospital gate by a large body of students, who in the most indignant terms protested their determination never to hear him again. After the lecture on surgery on the following evening, papers containing the following printed address were distributed at the gate:—

"*To the Students of the School at St. Bartholomew's Hospital.*

"Gentlemen,—I need not apologize for addressing you on the recent occurrences connected with the obstetric department of this school. The circumstances under which Dr. Ashburner resumed his lectures, on Saturday night last, demand a calm and dispassionate consideration. Much as the uproarious proceedings of that evening are to be regretted, yet the state of suspense in which the class have been kept, and the injudicious method of intimidation resorted to, greatly extenuate, if they do not justify, a recourse to the only mode of expressing their feelings, which such a system of threat and espionage had left to them.

"It has been the plea of Dr. A. and his friends, that he has not had a fair trial. Now I do assert, without fear of contradiction, that he was received, on his first commencing the course, with the most flattering marks of good-will and approbation, and even during his first two or three lectures, was listened to with respectful attention. This simple fact en-

tirely refutes the assertion that an organized opposition, the result of previous pique or party feeling, had driven him from the chair, without giving him an opportunity of developing those talents which he is *said* to possess. Inaccurate anatomy, crude and false physiology, novel and unsupported theories, usurping the place of practical instruction, uselessly and tediously protracted the course. Lectures without method or arrangement, clothed in coarse, and, often, unintelligible language; and, last, though not least, the puerile and contemptible threats by which he sought to overawe a class, whose respect his talents could not command,—these, gentlemen, and not personal hostility, emptied those benches, which on other occasions are so eagerly filled.

"Every one having at heart the prosperity of this great school, must regret to see its ranks thinned in consequence of the inefficient state of this department. With what *new* pretensions does Dr. Ashburner again present himself to a class which has listened with unmixed pleasure for the last six weeks to the well-arranged and highly instructive lectures of a man of science—can he, in so short a period, have made up for his lamentable deficiencies?

"The obvious meaning of *the presence of Examiners from Apothecaries' Hall*, excited an unmingled feeling of disgust. But what shall be said of the appearance of a gentleman, always considered the pupil's friend, in the discreditable character of *partisan*, attended by a posse of his dressers, and even his house-surgeon? If this gentleman would preserve the esteem in which he has hitherto been deservedly held by the whole school, he must relinquish his new and unamiable character of partisan, and not again indulge in injudicious remarks, especially on 'the usages of civilized society.'

"The other lecturers at this hospital command the respect of their classes by their talent alone, Dr. Ashburner wanting this qualification is forced to rely on the intercession of injudicious friends, the intimidating presence of examiners, the compulsory aid of hospital beadles, and the unprecedented display of police truncheons.

"Gentlemen, these are the plain facts. Exercise your deliberate judgment. Your duty is obvious. Whatever means you pursue, proceed with firmness and *unanimity*, but, at the same time, with moderation. A FRIEND.

"January 5th, 1835."

On Tuesday last, the 6th, Mr. STANLEY, previous to the commencement of his anatomical lecture, announced that the governors and medical officers were exerting themselves very strenuously, to *place the obstetric lectures on a better footing*; and he begged to state that there would be no midwifery lecture that evening.

LATE ELECTION AT THE MARYLEBONE INFIRMARY.

To the Editor of THE LANCET.

YOUR last number contains a letter relative to the late election of a physician to the *St. Marylebone Infirmary*; in reply to which you will oblige me by inserting the following few lines. The letter in question is a copy of one which was circulated (some ten days since or more) amongst the guardians and directors of the Parish of St. Marylebone, and emanated obviously from an adherent of the candidate that stood last on the poll, if not from that well-known physician himself. With its allegations, so far as they concern the directors and guardians, I have nothing to do. Those gentlemen are well able, if they think it worth while, to defend themselves against anonymous attacks. My object is to notice the insinuated, rather than the openly-made charge, against the two more favoured candidates, that they purchased their majorities by discreditable means; viz., by pandering to parochial party feeling. Now what ground is there for such a charge? I took a very active part in that canvass, and unhesitatingly declare that there is no sufficient ground for it. No decent excuse for an insinuation so unhandsome on the part of a medical man against two others, each of whom is, to say the least, as respectable as himself. Neither Dr. Cursham, who had five votes out of nineteen, which were polled, nor Dr. Clendinning, who had twelve, has ever taken any part in parochial politics beyond a vote, perhaps, at a parochial ballot for vestrymen. That most of the conservative votes then available were numbered amongst the five, and most of the liberal votes amongst the twelve, is possible, but whose fault is that? Did the candidate in whose favour your correspondent appeals to the medical woolsack in Essex-street, *threaten* in his canvass, that if not then elected, he would never stand again? Did he urge as another argument upon electors who are understood to wish for *permanent* officers, that he meant to resign after three years of office? Did he further attempt to steal a march on his competitors, by setting afloat a plan by which he must have gained

a footing in the Infirmary without a majority of votes, — viz. a scheme by which three physicians were to be immediately elected, instead of one successor to Dr. Hope (viz. two intern, and one extern or assistant), which plan, as there were but three candidates, would, if successful, have enabled the unpopular candidate to slip in without a contest? And did he manœuvre so well as to procure the consent of several supporters of the successful candidate to his plan, at a second, for himself unsuccessful, discussion, at which it was again rejected, and within four or five days only of the final ballot? Finally, as your correspondent calls for professional adjudication, is professional popularity, or unpopularity, nothing? And if, as he seems to think, it is important, I beg leave to inquire, what or who has made his protege candidate professionally unpopular—himself or his competitors?

* * *

Believe me, Sir,
Your very obedient,
MARYLEBONENSIS.

Jan. 5th, 1835.

*** We omit the concluding paragraph of the original of this letter. It would be exceedingly unfair to give circulation to a remark which is not accompanied by any statement of facts to justify the prejudice which it would tend to create.—ED. L.

BOOKS RECEIVED.

A Treatise on Tubercular Phthisis, or Pulmonary Consumption. By James Clark, M.D. From the Cyc. of Prac. Med. Sherwood. London. Roy. 8vo. pp. 88.

Symptoms and Treatment of Malignant Diarrhœa; better known by the name of Asiatic or Malignant Cholera. By Wm. Marsden, M.R.I., &c. London: E. Wilson, 1834. pp. 56.

The Principles of Ophthalmic Surgery: being an Introduction to a Knowledge of the Structure, Functions, and Diseases of the Eye; embracing New Views of the Organ of Vision. By John Walker, Manchester Eye Institution. London: Taylor, 1834. pp. 195.

The Gums; with late Discoveries on their Structure, Growth, Connexions, Diseases, and Sympathies. By Mr. George Waite, M.R.C.L. London: Longman, 1835. pp. 160.

An Inquiry into the Claims of Dr. Wm. Harvey to the Discovery of the Circulation of the Blood; with a more equitable Retrospect of that event. To which is added an Introductory Lecture, delivered on the 3rd of November 1829, in vindication of Hippocrates from sundry Charges of ignorance professed against him by the late Professor Rush. By John Redman Coxe, M.D., Prof. of Mat. Med. in the Univ. of Pennsylvania. Published at Philadelphia, 1834. 8vo. pp. 258.

Physiognomy founded on Physiology, and applied to various countries, professions, and individuals. By Alex. Walker, formerly Lect. on Anat. and Phys. at Edin. With Engravings. London: Smith and Elder, 1834. pp. 286.

Illustrations of the Natural History of Worcestershire. By Chas Hastings, M.D. London: Sherwood, 1834. 8vo. pp. 184.

The Phrenological Journal and Miscellany to Dec. 1834. Published Quarterly. Edinburgh: Anderson.

Chemical Recreations. By J. J. Griffin. Seventh edition. Glasgow, 1834.

A New Method of making Anatomical Preparations, particularly those relating to the Nervous System. By Joseph Swan. Third edition. London: Longman, 8vo, pp. 111.

CORRESPONDENTS.

Dr. J. M. DAVIDSON, Senior Physician to the General Hospital, near Nottingham, wishes us to state that the report of the case of diabetes, communicated by his coadjutor, Dr. Hutchinson, and published in THE LANCET of Dec. 27th, was forwarded without Dr. Davidson's "sanction." Dr. D. complains of some errors in the transcription of the notes of the case, and promises to transmit to us "a more accurate account of the result of Mr. Grisculthwaite's experiments on the blood of the patient, as soon as he can communicate with that gentleman."

With regard to the statement of Mr. COWAN, inserted at page 564, we have not room for anything more than a sentence expressive of our astonishment at the conduct ascribed to Mr. SYME. We make this remark after an examination of the more-than-moderate bill for medical attendance furnished by Mr. Cowan.

The statements from Apothecaries' Hall shall find a place in our pages next week.

Mr. WAKLEY's address to the Electors of the Metropolitan District of Finsbury, was responded to on Thursday and Friday last, at the polling booths in the district, by the votes of 3300 Electors. The result of the poll was appointed to be declared from the hustings, on Islington Green, at twelve o'clock, this day, Saturday, the 10th of January.